

FIG. 1

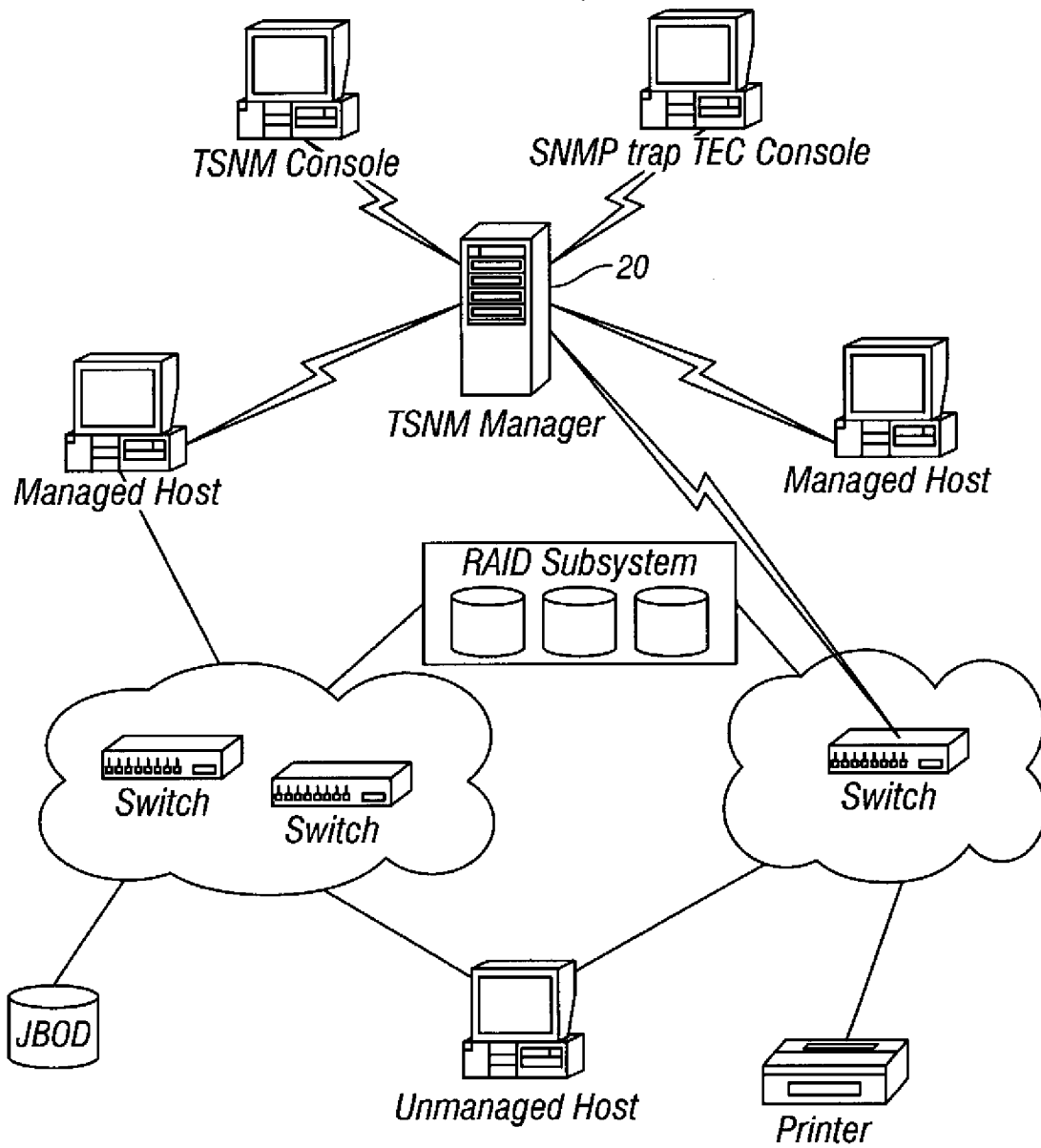


FIG. 2

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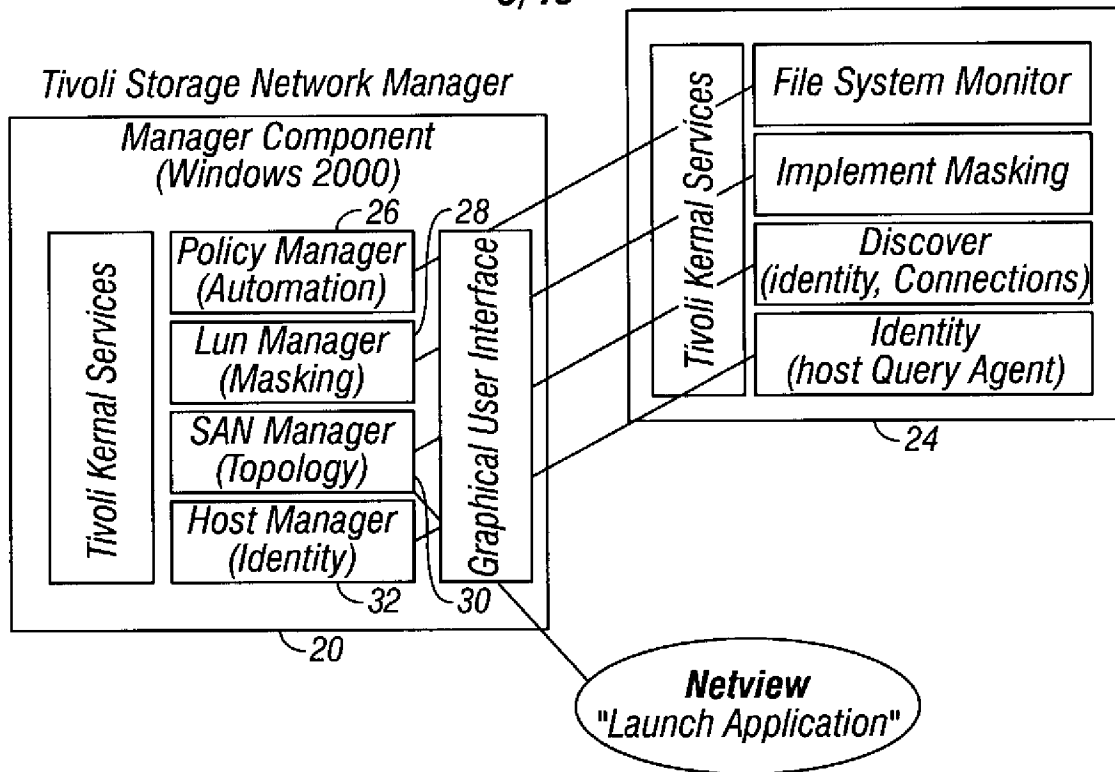


FIG. 3

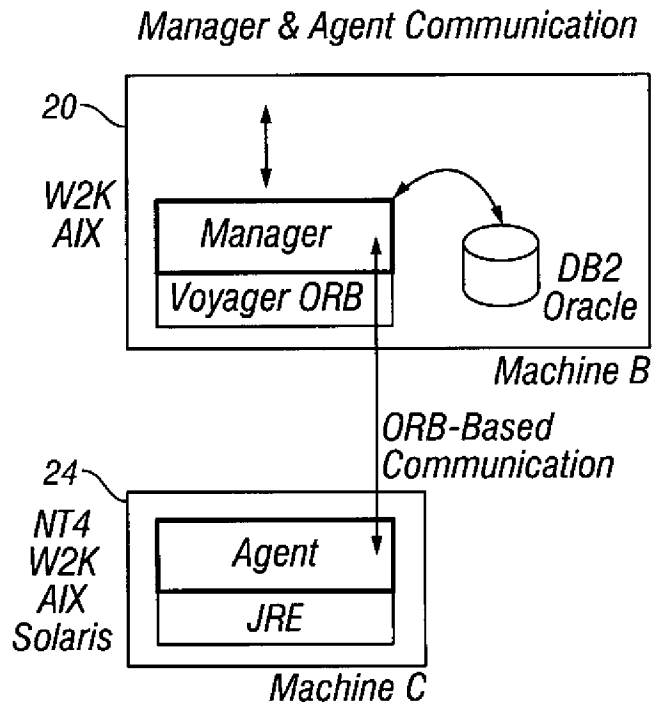


FIG. 4

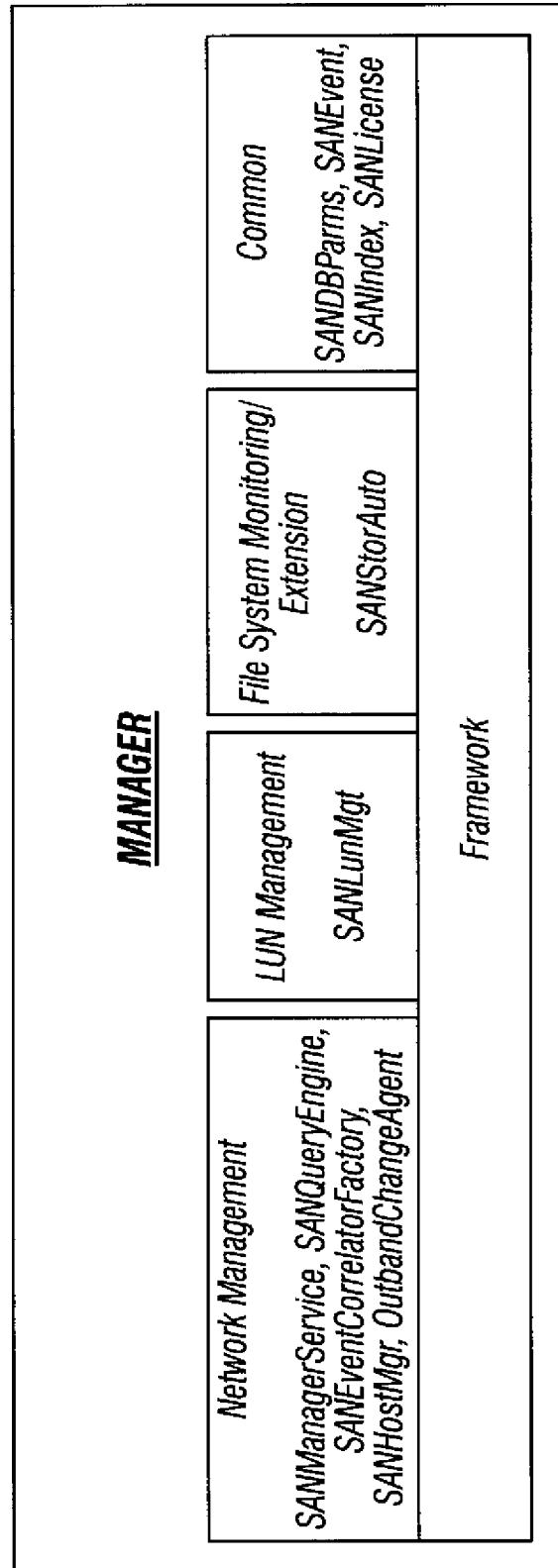
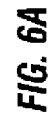


FIG. 5



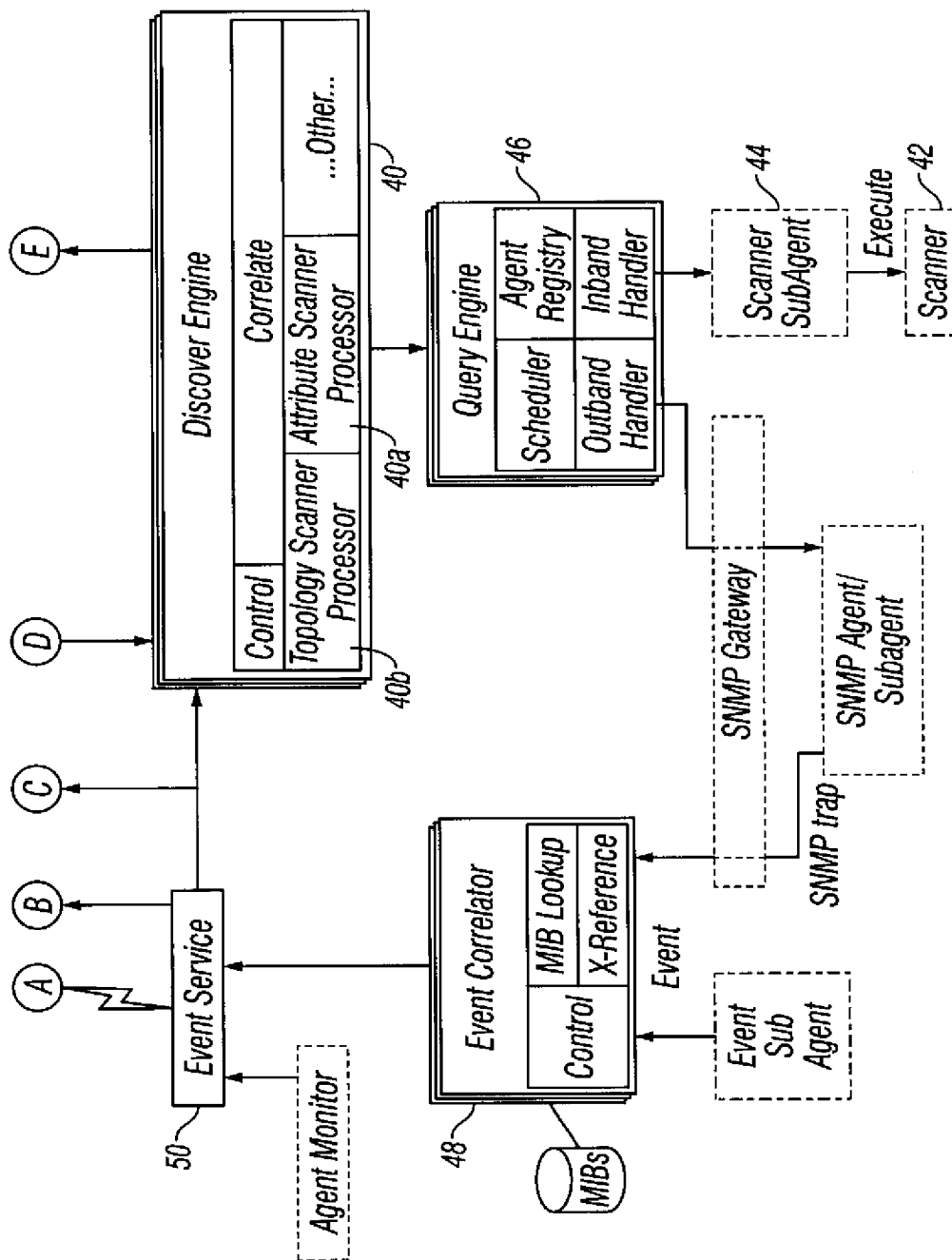


FIG. 6B

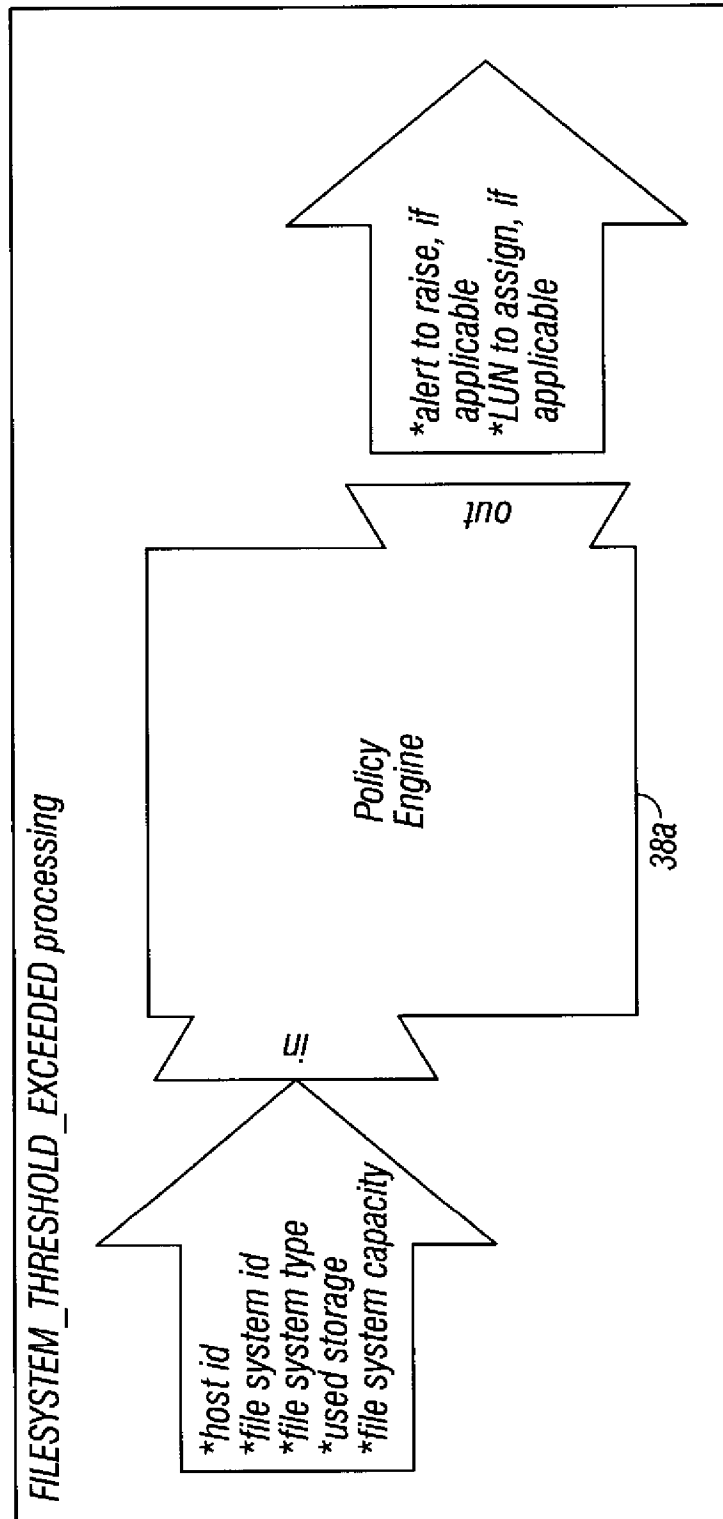


FIG. 7A

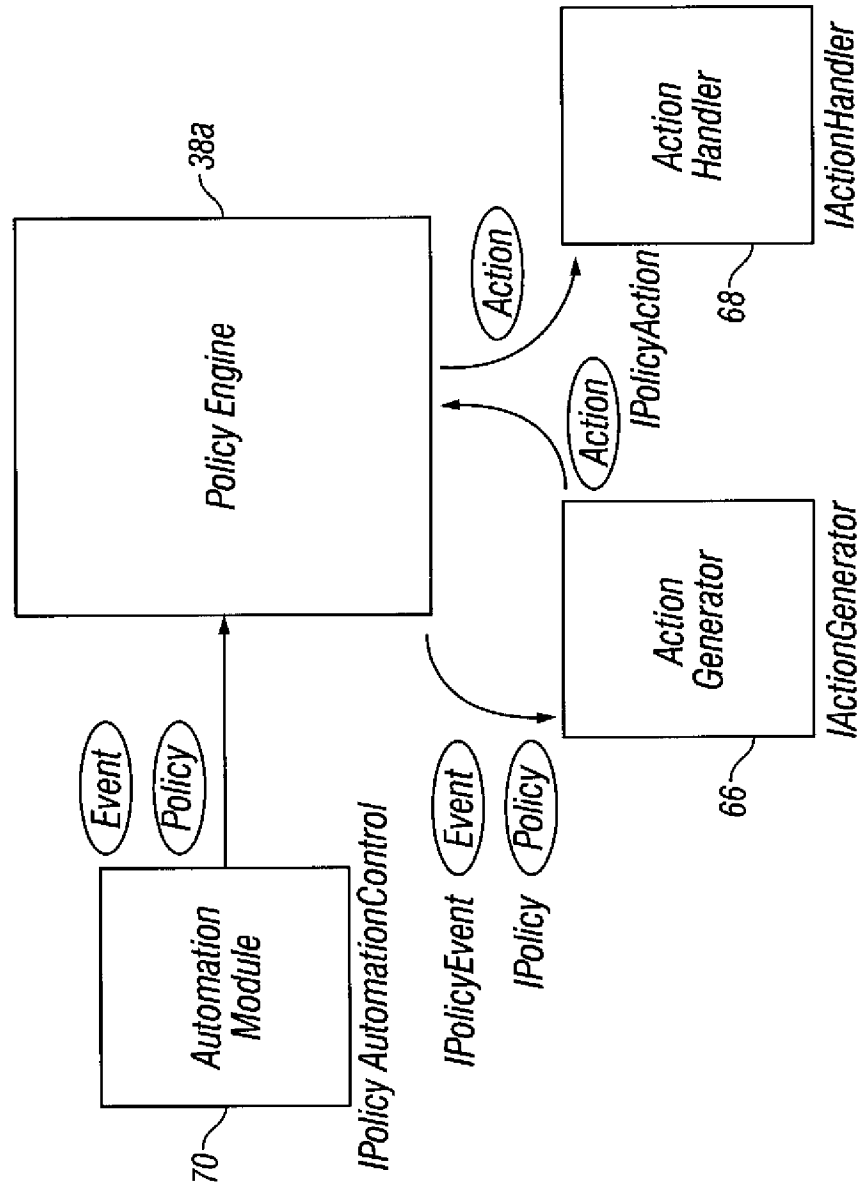


FIG. 7B

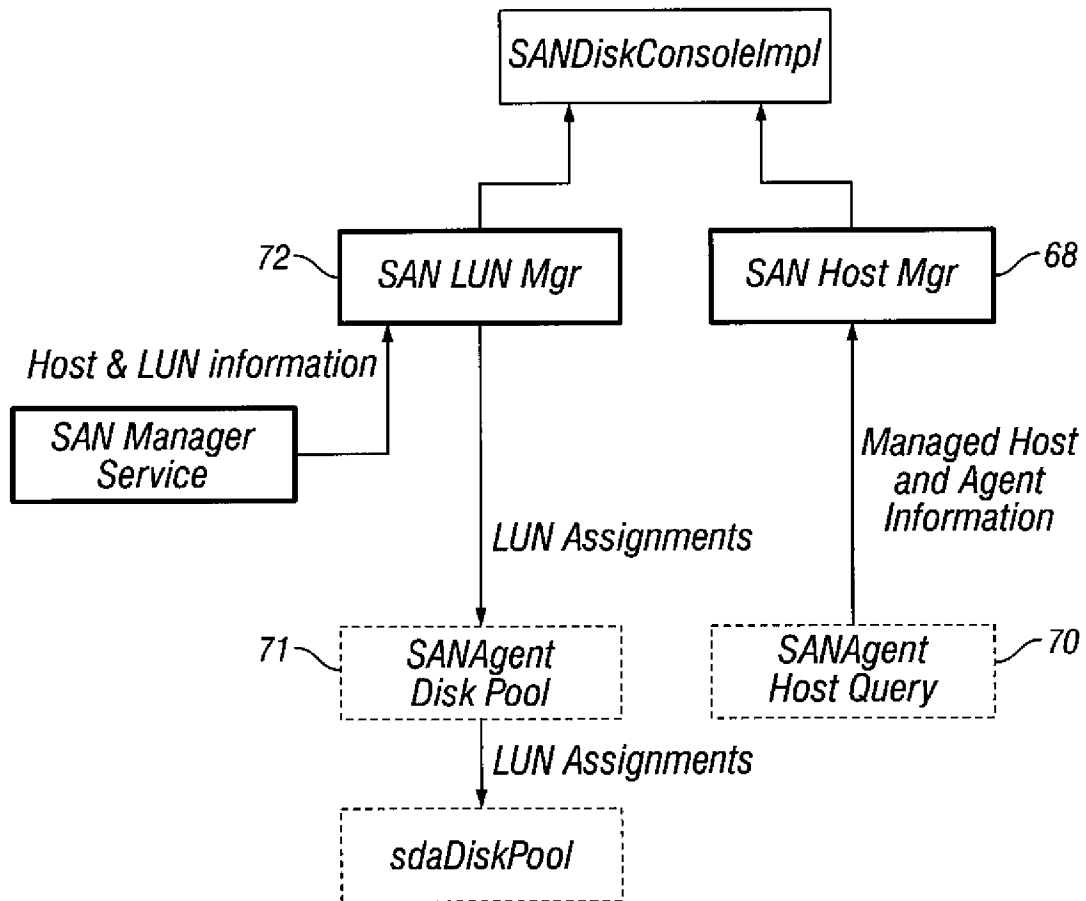


FIG. 8

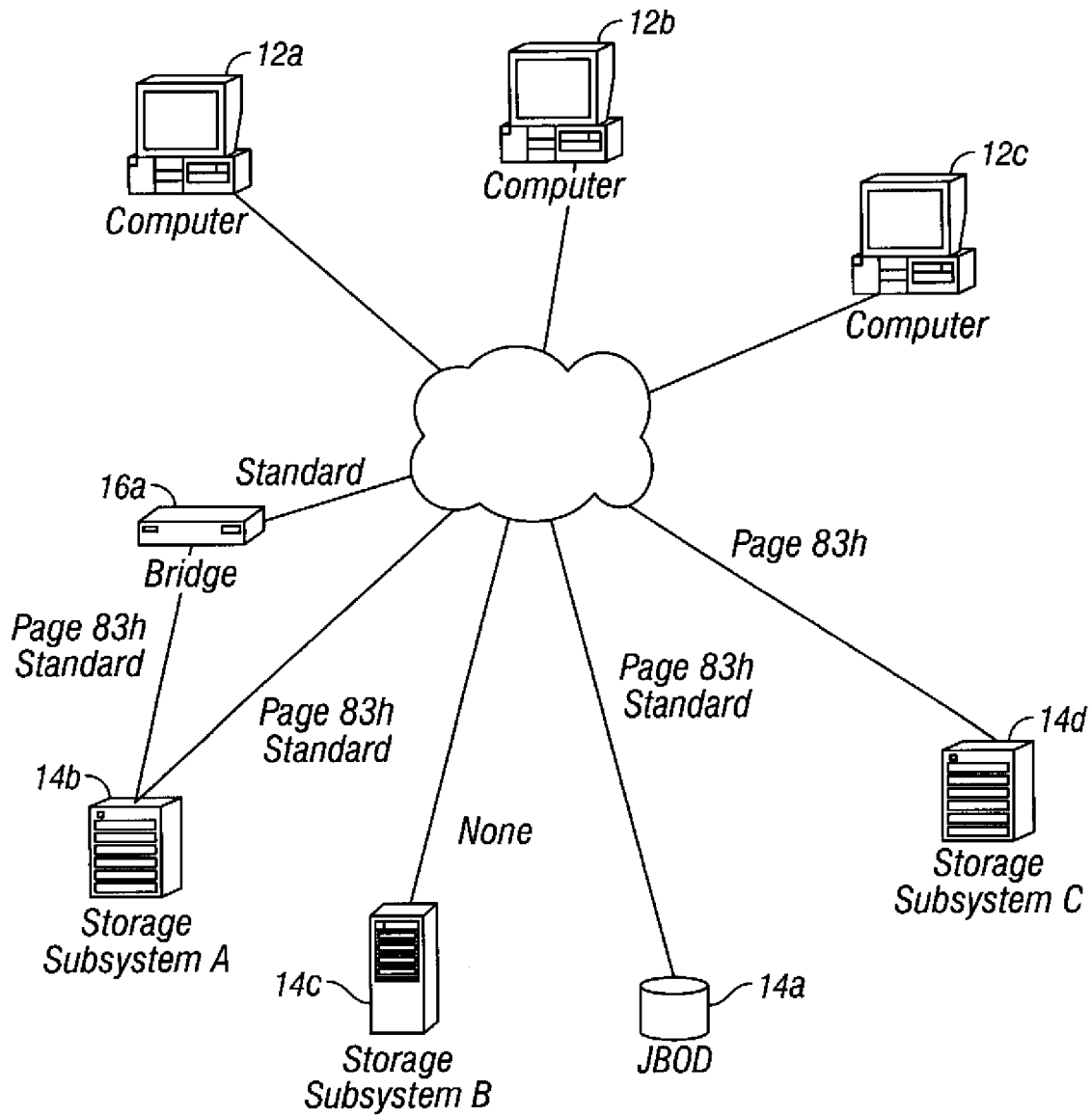


FIG. 9

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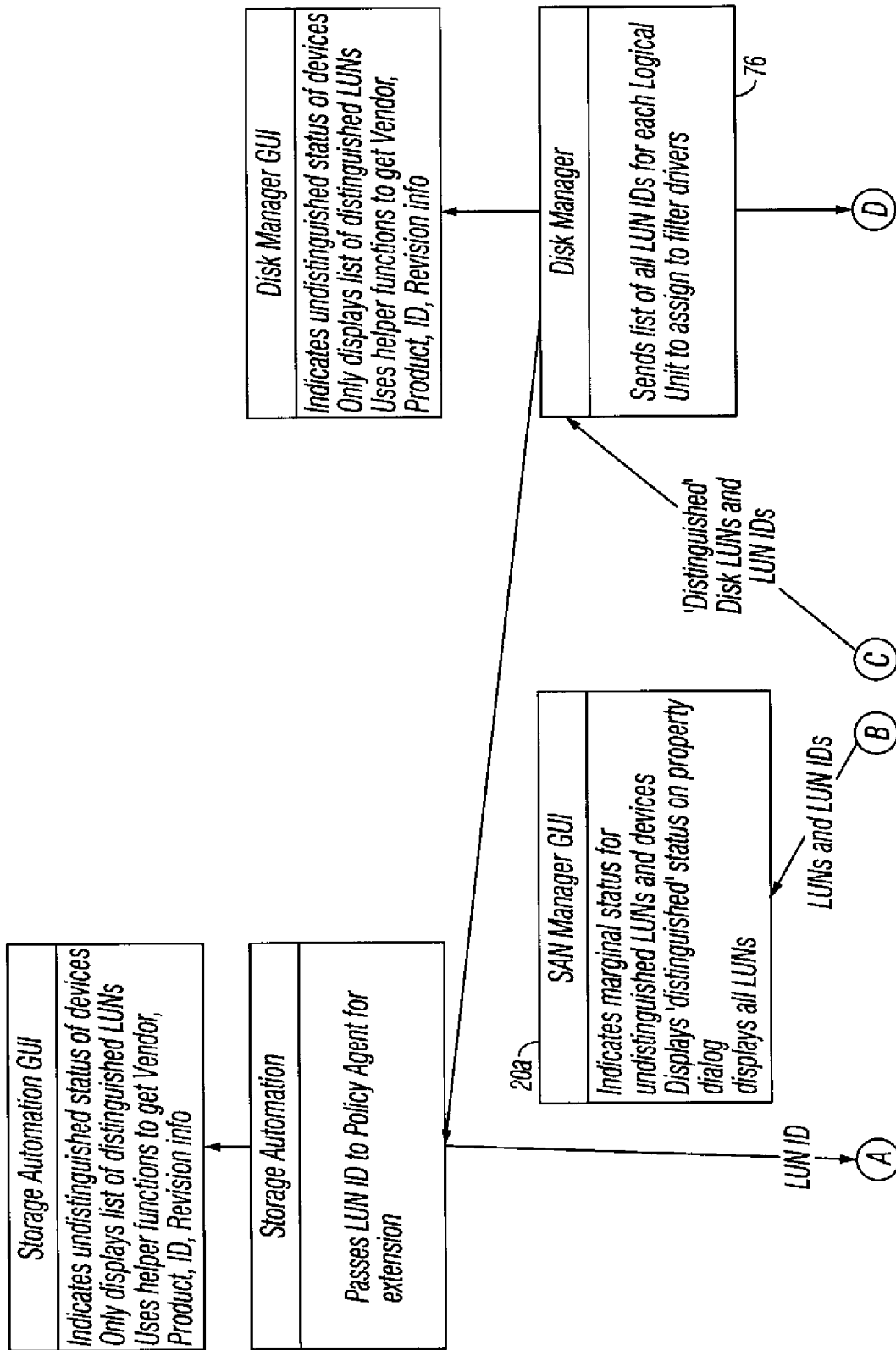


FIG. 10A

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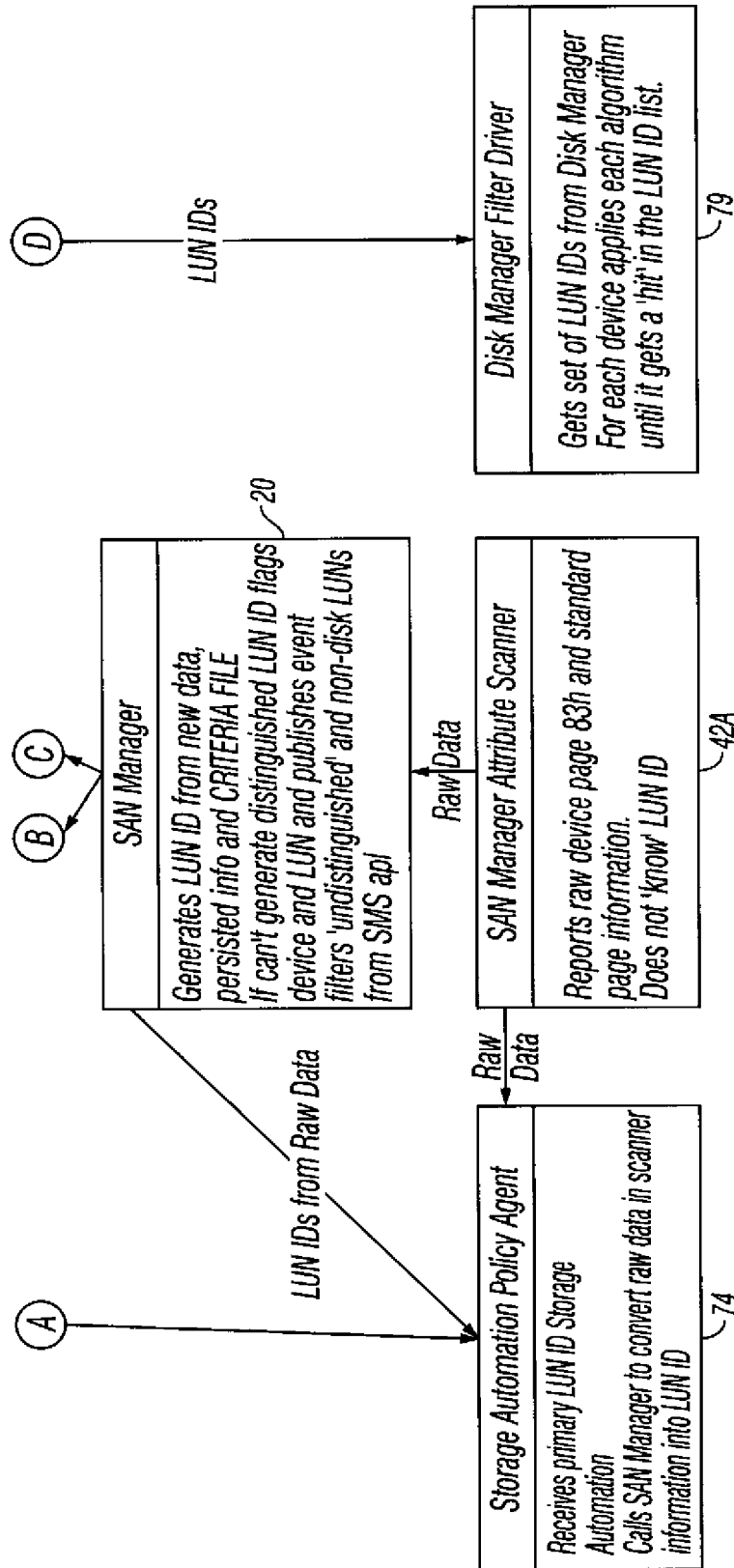


FIG. 10B

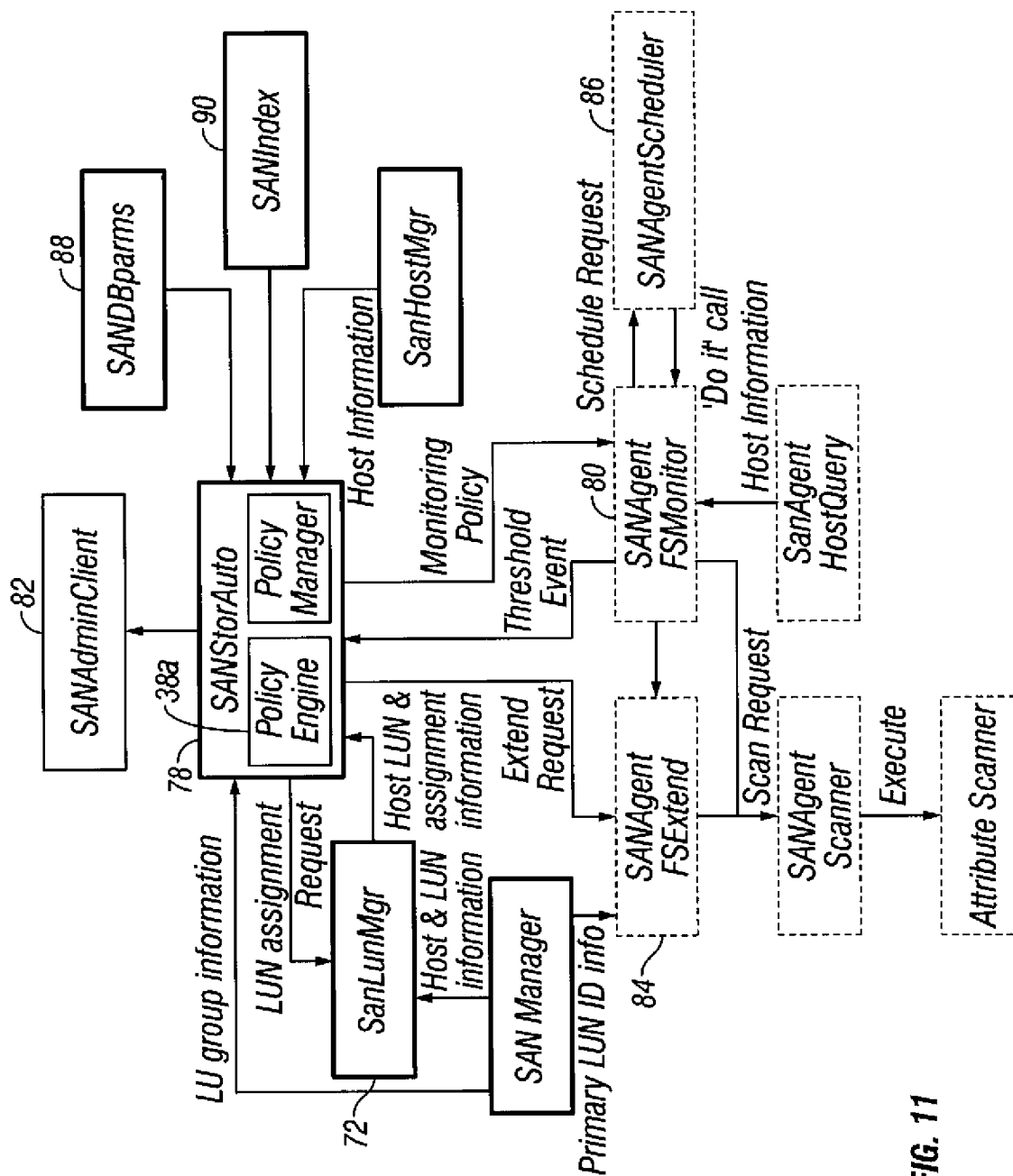


FIG. 11

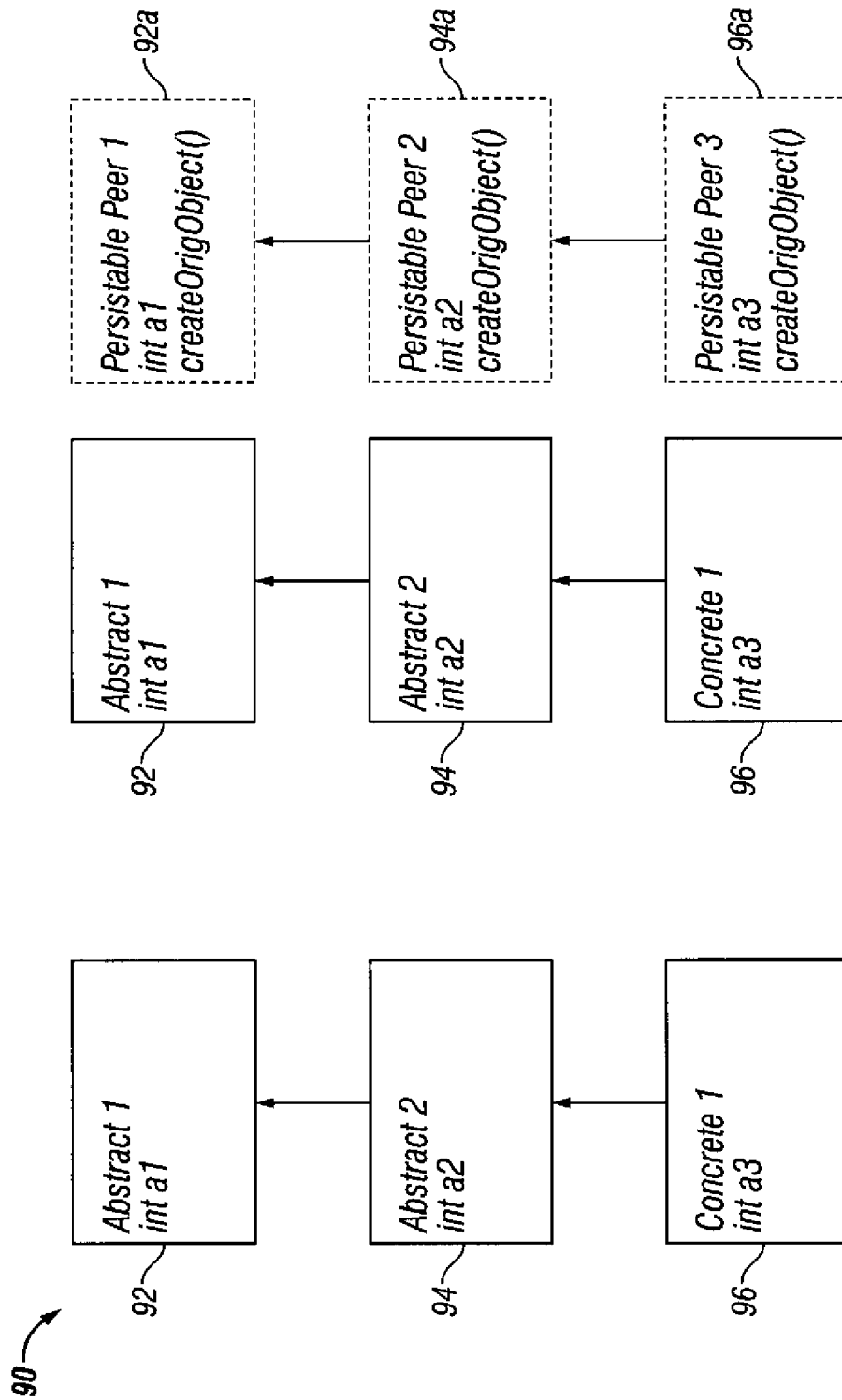


FIG. 13

FIG. 12

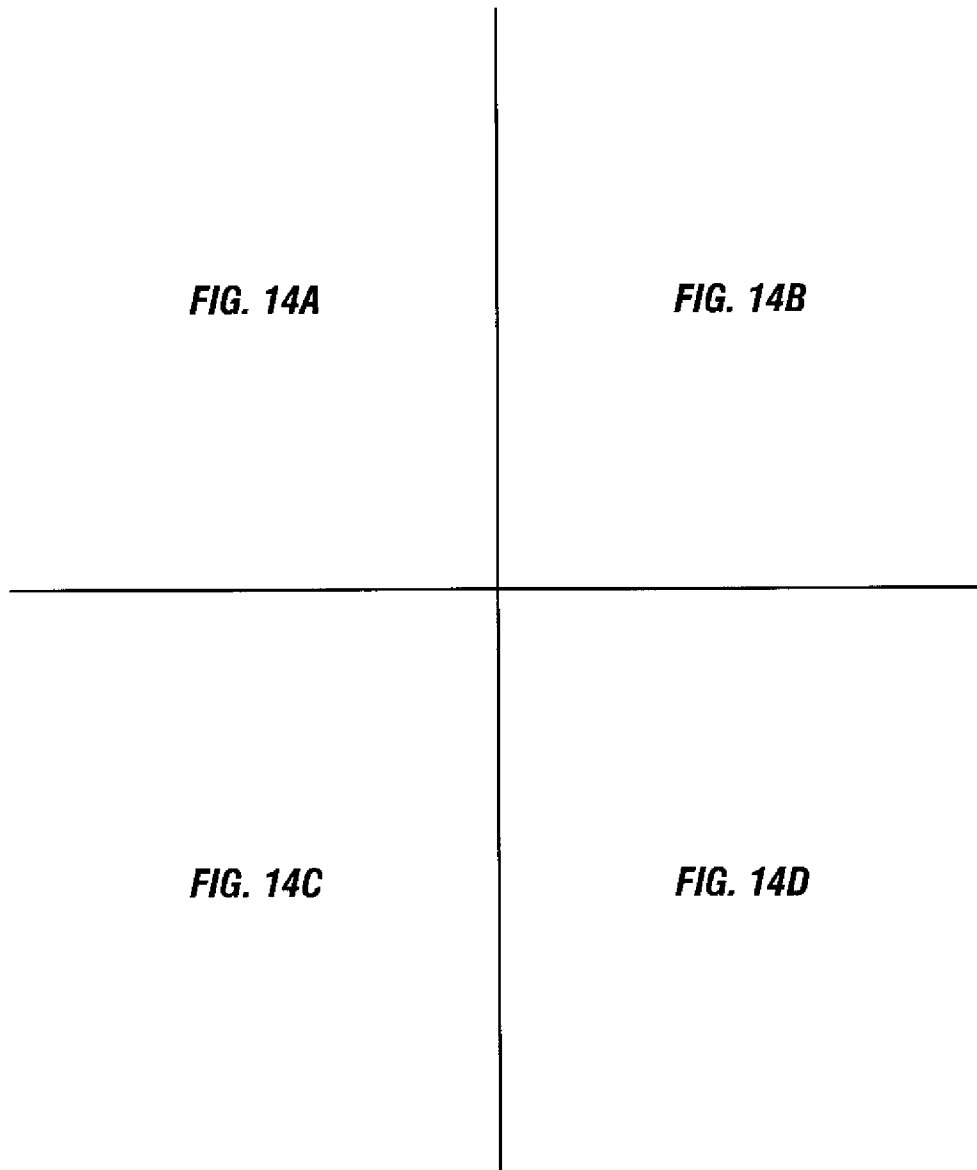


FIG. 14A

FIG. 14B

FIG. 14C

FIG. 14D

FIG. 14

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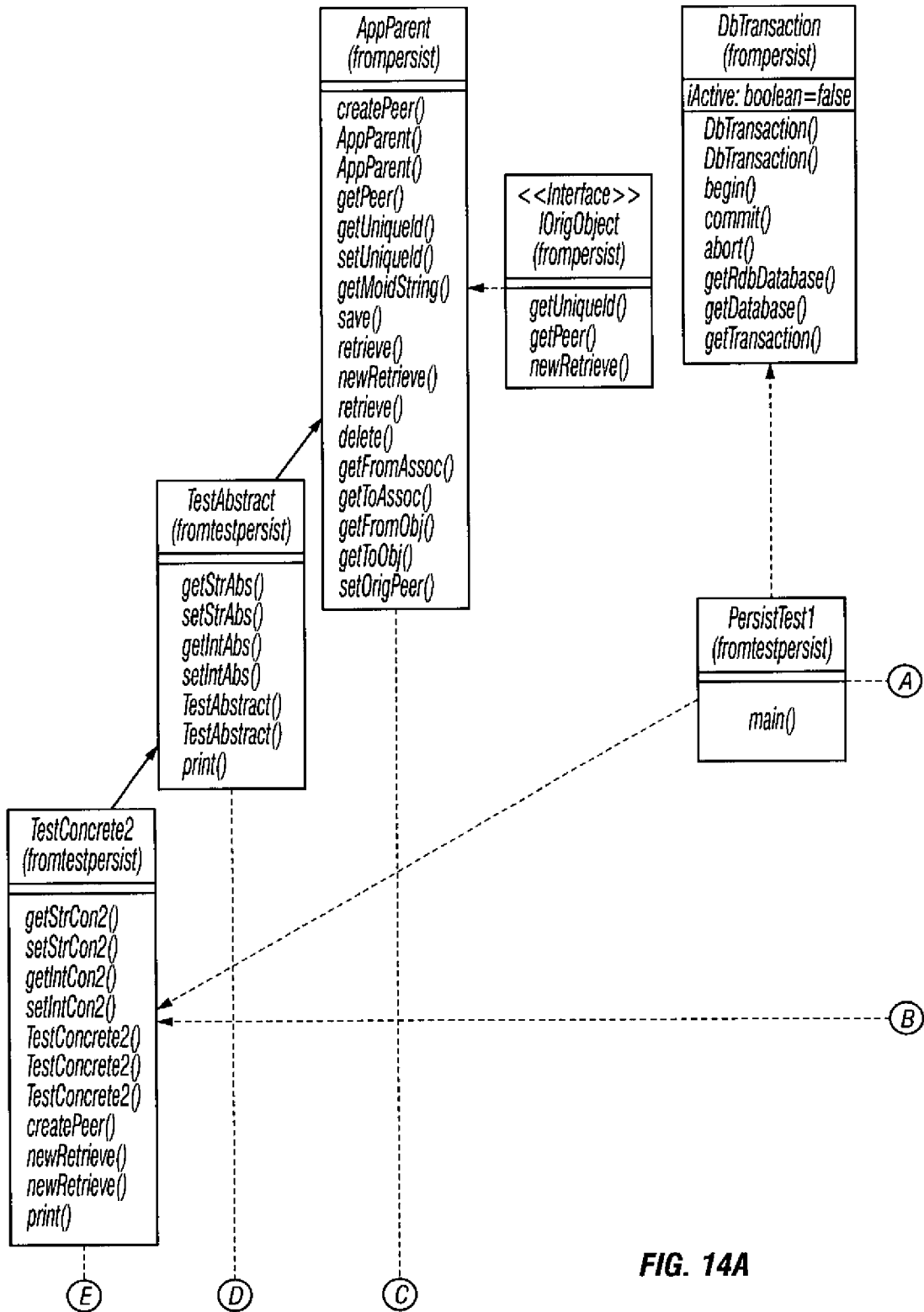


FIG. 14A

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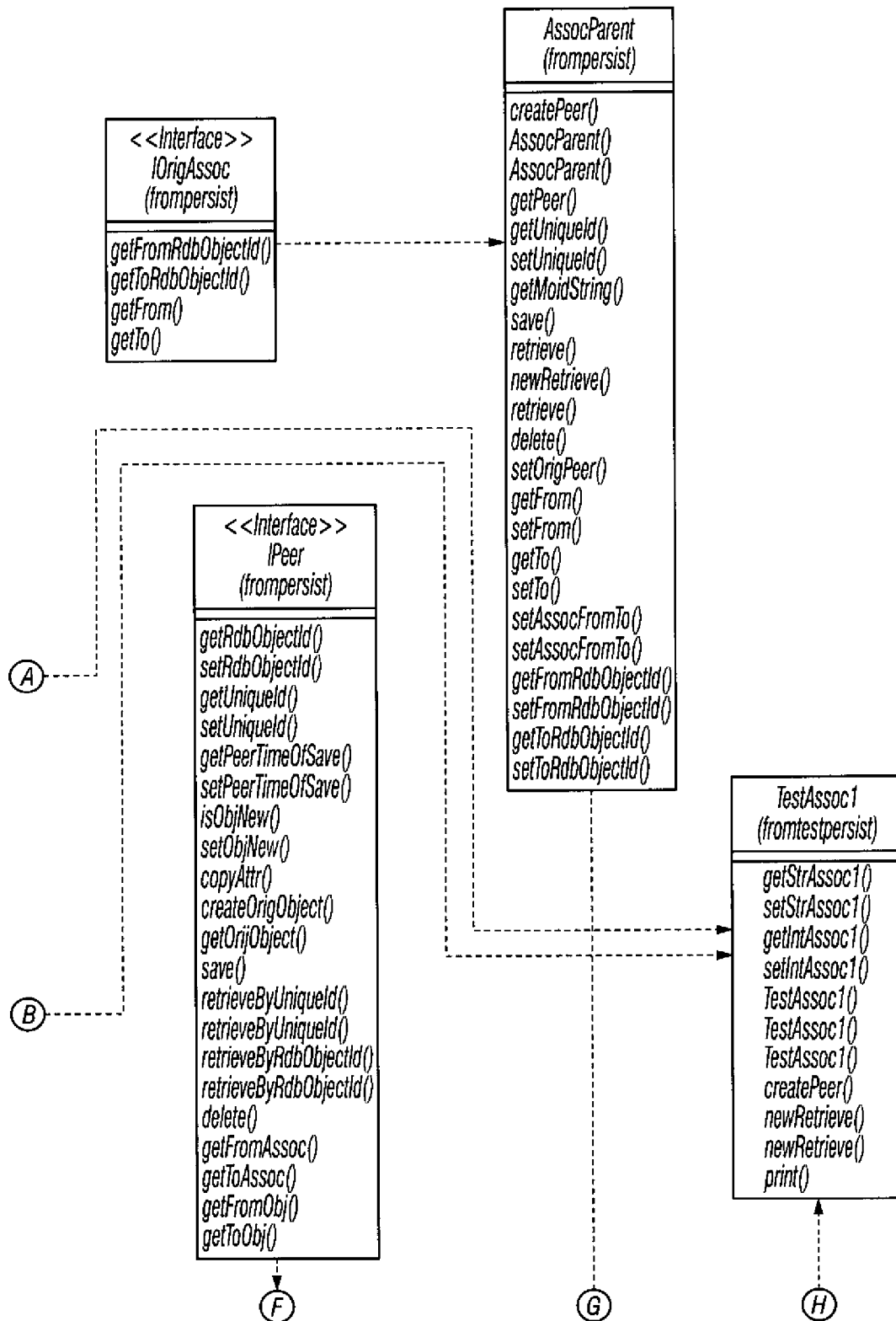


FIG. 14B

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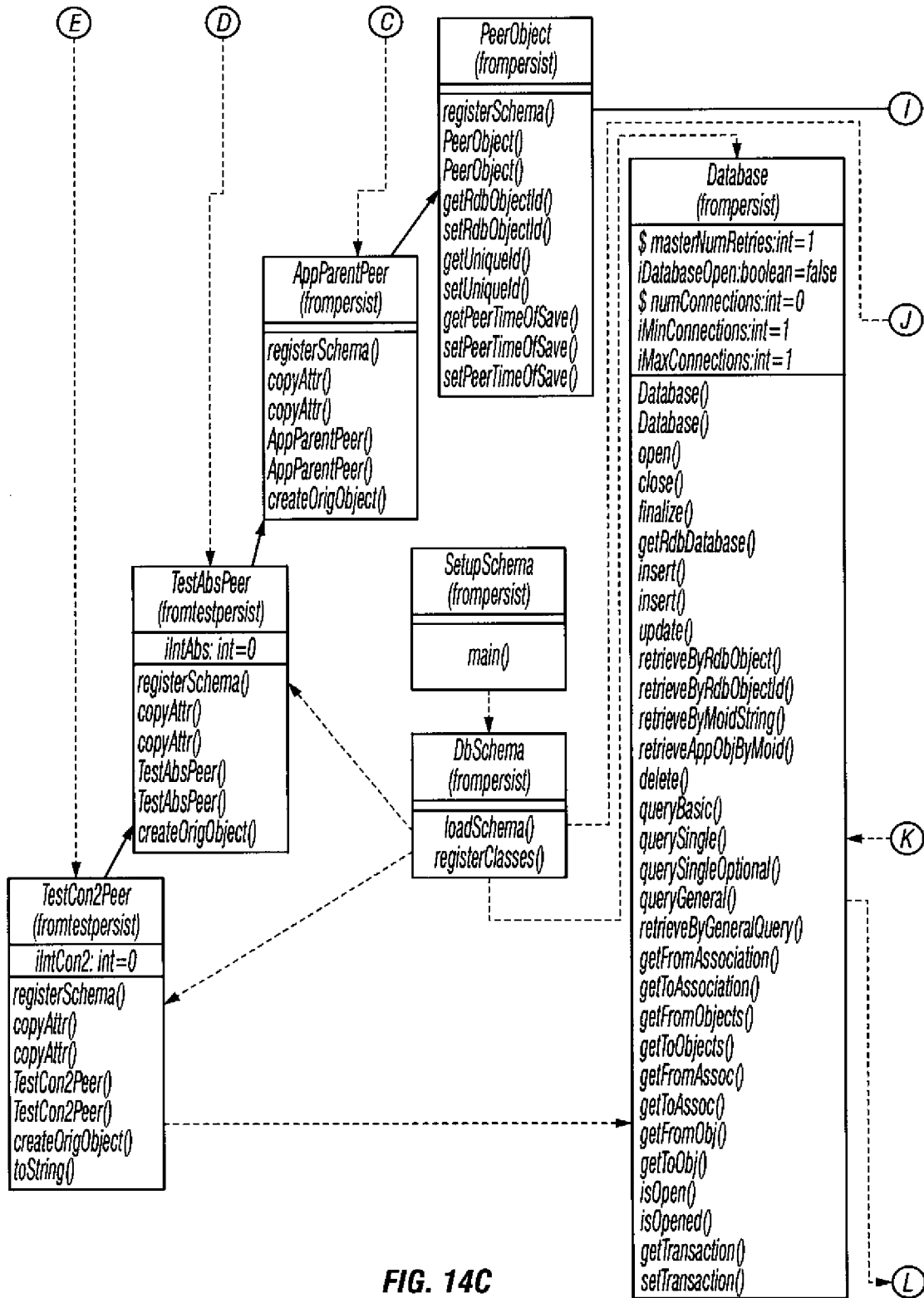
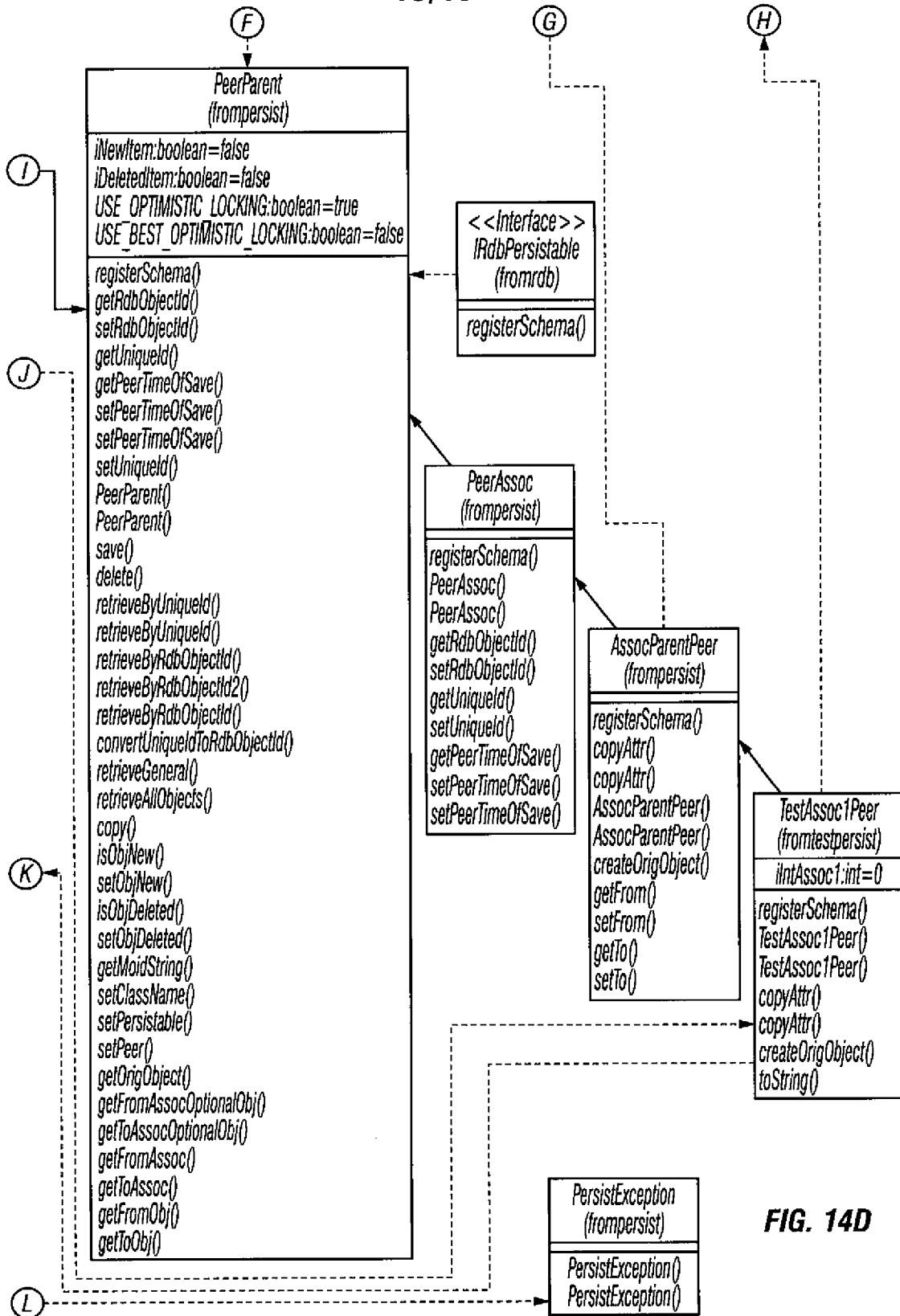


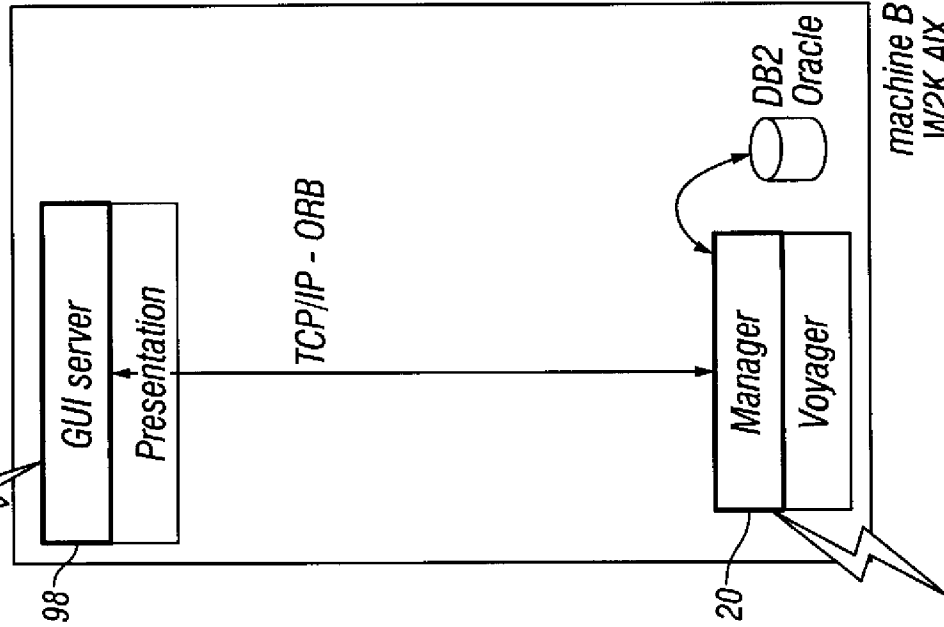
FIG. 14C

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GUI (server) & Manager communication



- Manager creates objects (services) and "bind" them to Voyager directory service
- GUI "looks up" the object by name in directory service and get the object "proxy"
- GUI invokes object methods to obtain info or perform operation

Example: Class TDMServer()

```
LUN[] getAccessibleLunsByHost(HostaHost)
LUN[] getAccessibleLunsByHost(java.lang.String ip)
LUN[] getAllAccessibleLuns()
LUN[] getAssignedLunsByHost(HostaHost)
LUN[] getAssignedLunsByHost(java.lang.String ip)
```

```
//Look up the Tdm Server proxy object from the directory service
TdmServeraTdm = (Tdm Server) Namespace.lookup(
    "//localhost:9000/sandir/TdmServer");
//Get a list of all LUN objects in the region.
Lun[] temp1 = aTdm.getAllAccessibleLuns();
```

FIG. 15

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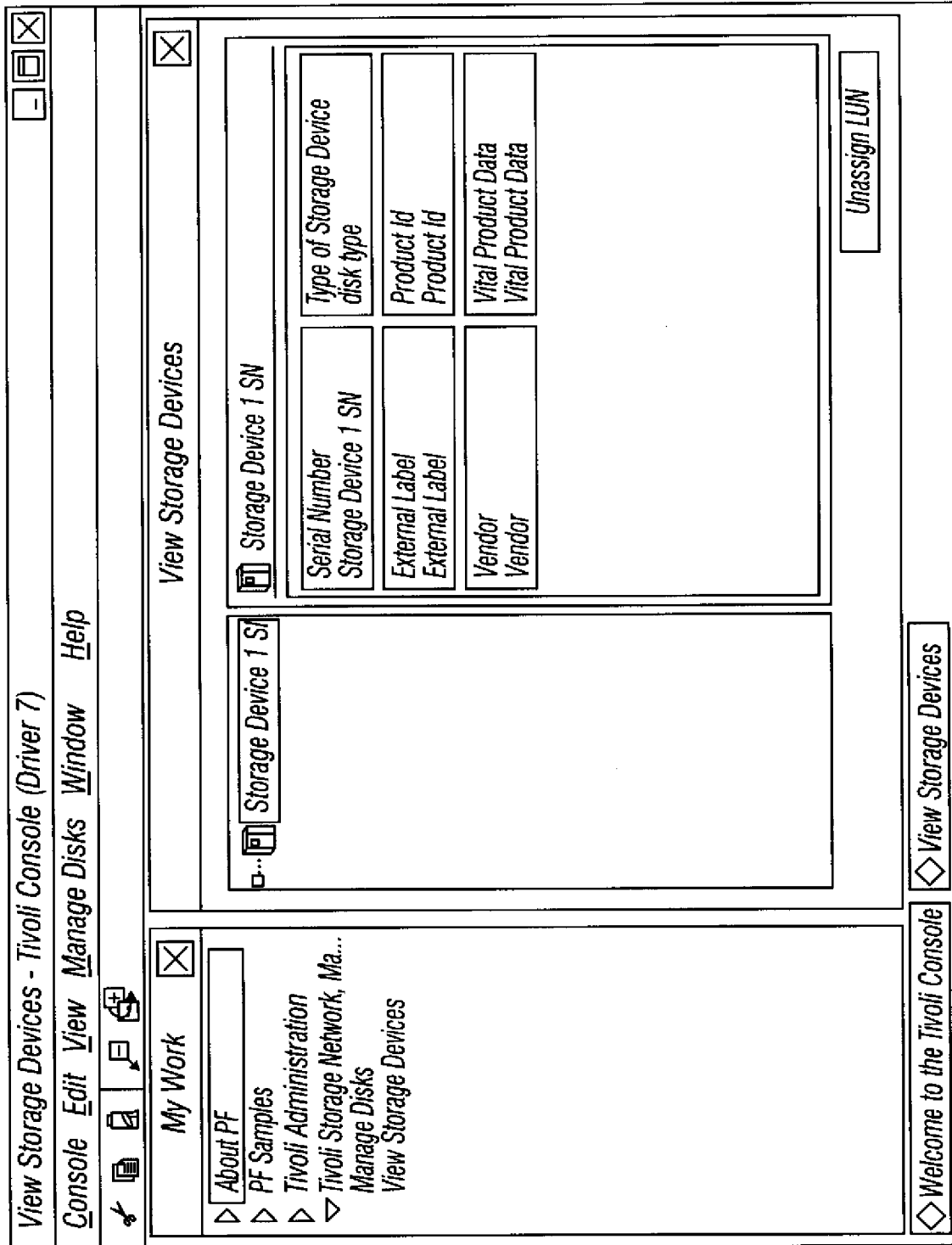


FIG. 16

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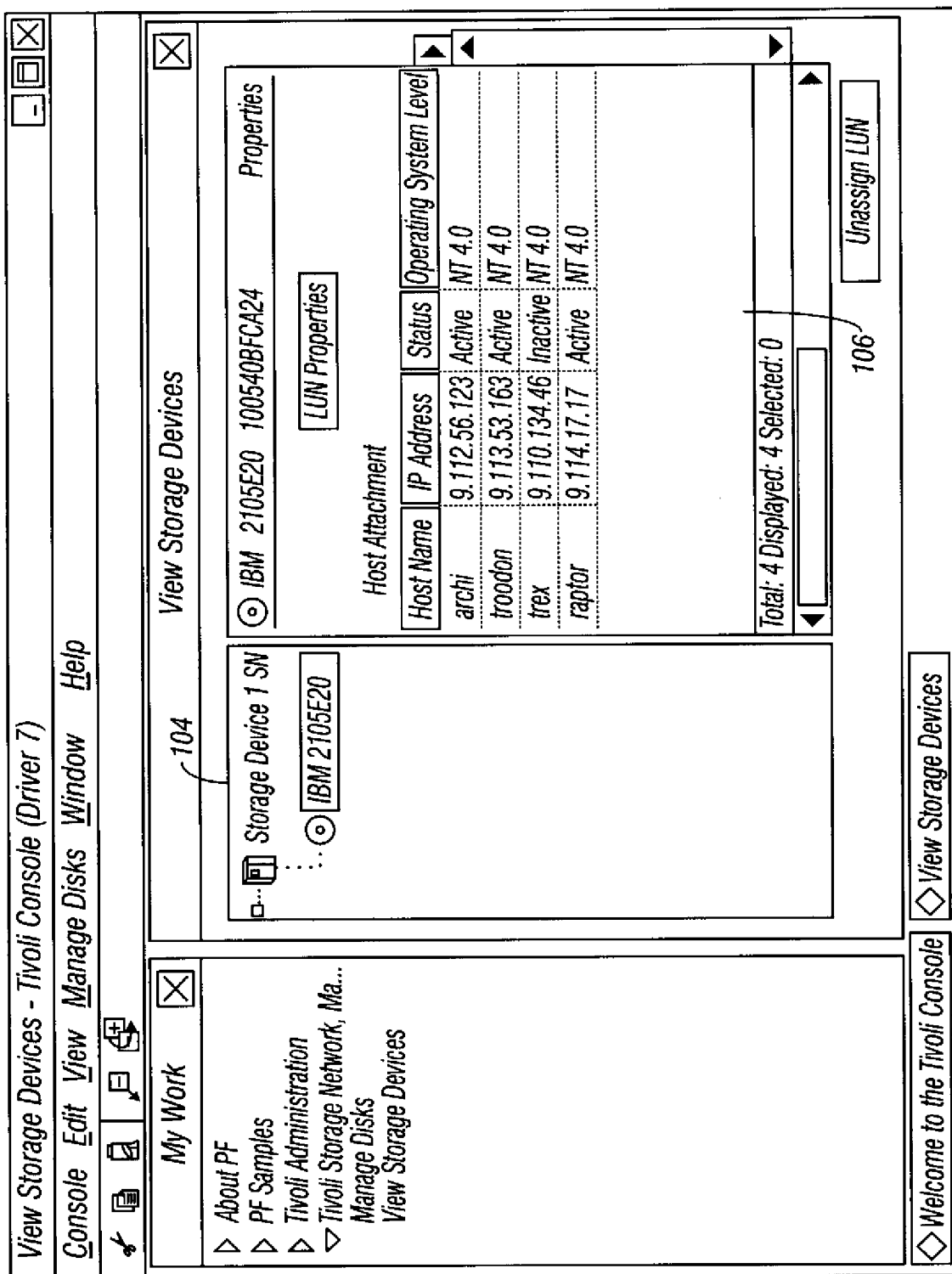
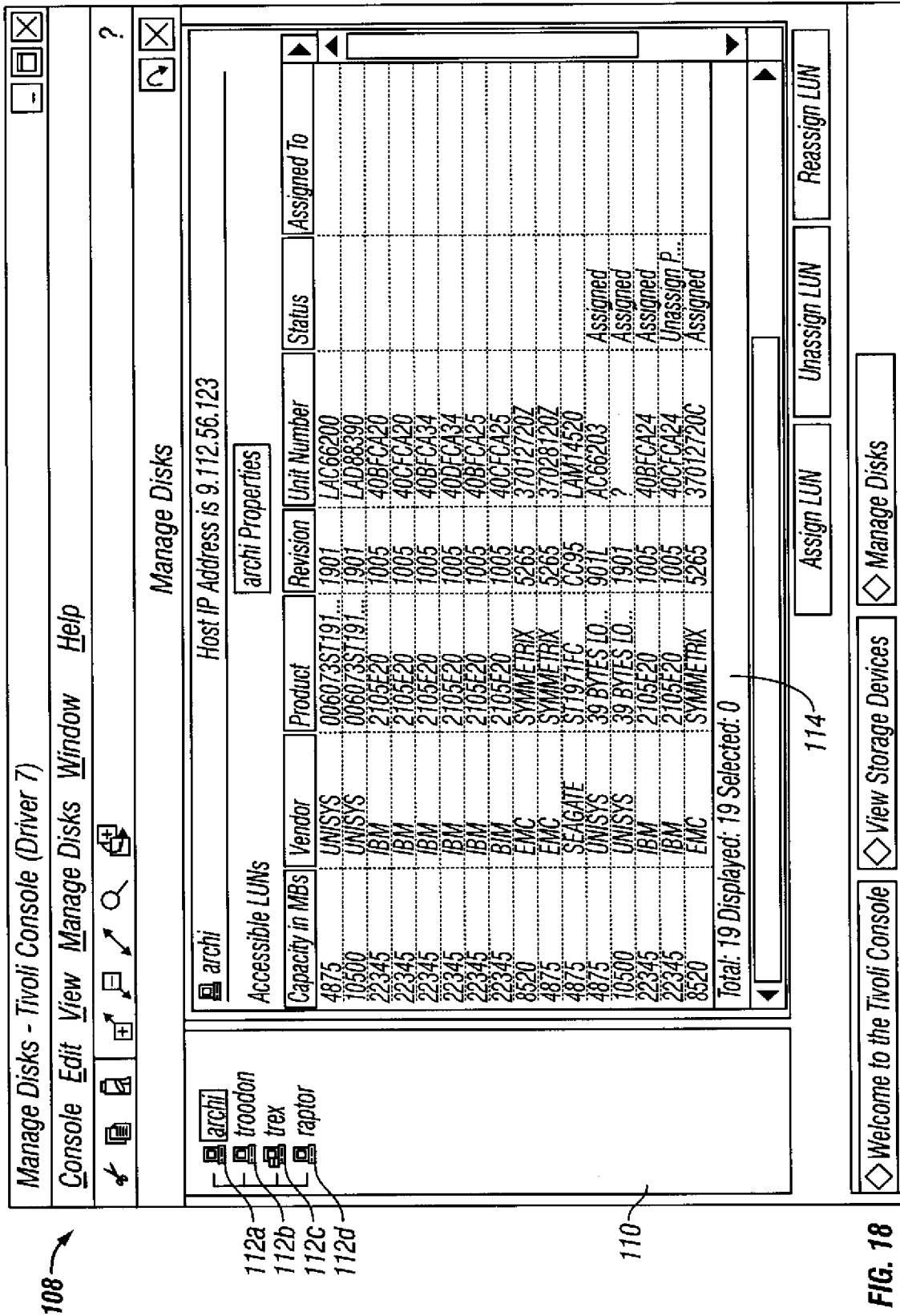


FIG. 17

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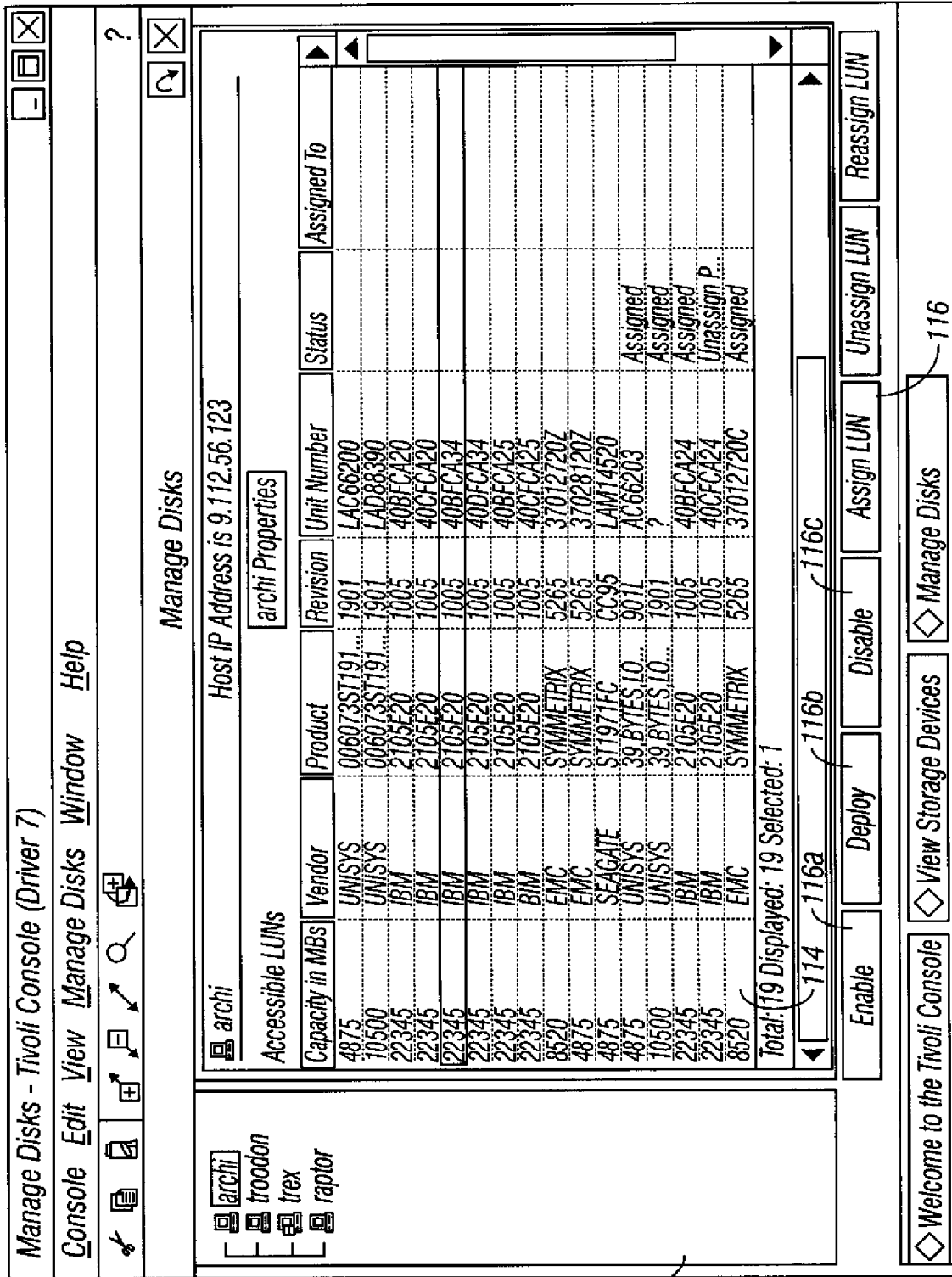


FIG. 19

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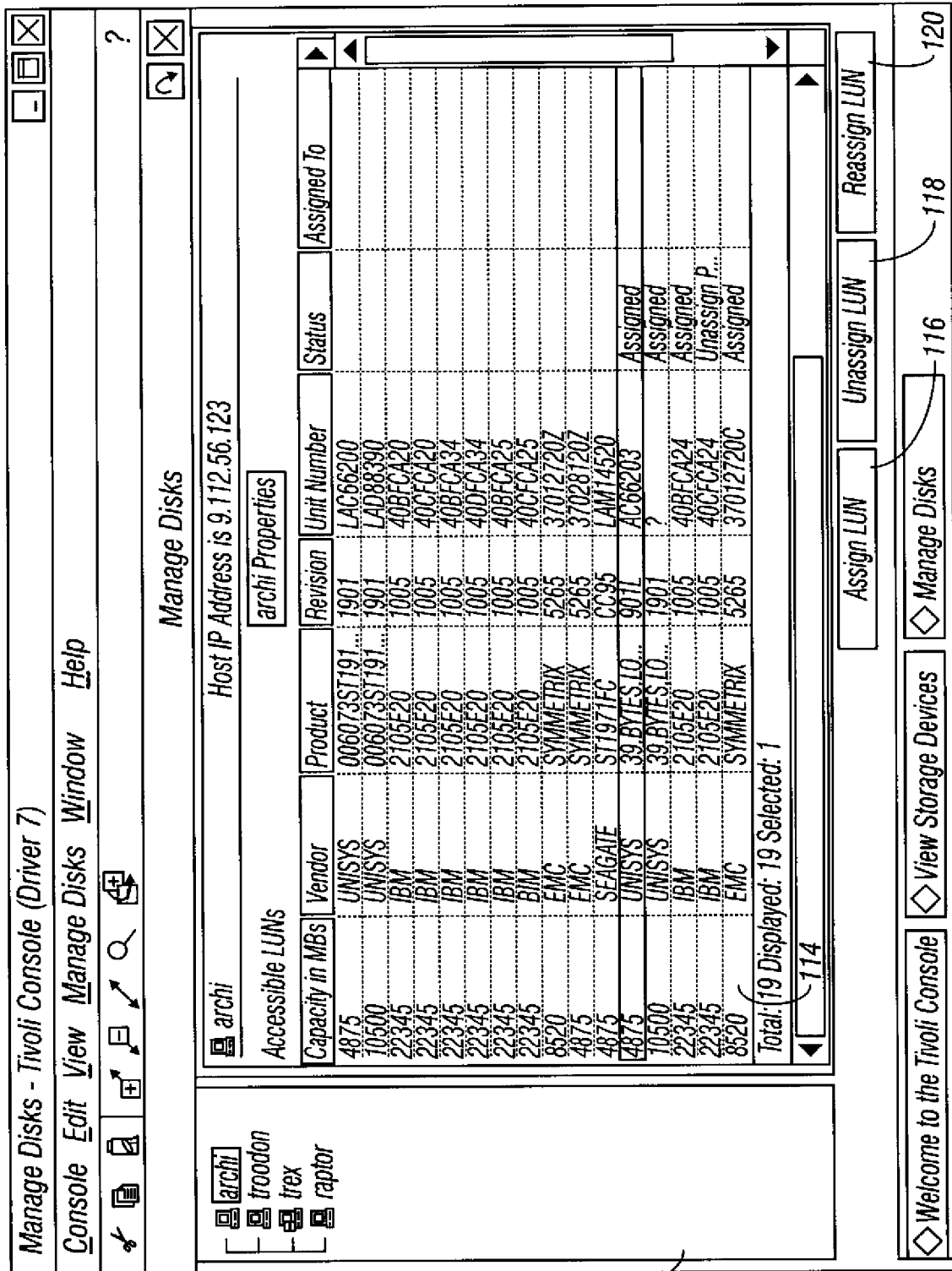


FIG. 20

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Manage Disks - Tivoli Console (Driver 7)

Console

Edit

View

Manage Disks

Window

Help

?

archi

troodon

trex

raptor

vega

Host IP Address is 9.112.56.123

Host Properties

Capacity in MBs	Vendor	Product	Revision	Unit Number	Status	Assigned To Other	Logical Unit
22,345	IBM	2105E20	1005	40CFC424	Unassigned Pending	<no filter>	LU group 1
10,500	UNISYS	006073ST191...	1901	LAD88397	Assigned	<no filter>	LU group 1
22,345	IBM	2105E20	1005	40BFC424	Assigned	<no filter>	LU group 1
8,520	EMC	SYMMETRIX	5265	37012720C	Assigned	<no filter>	LU group 1
10,500	UNISYS	006073ST191...	1901	LAD88390	Assigned	<no filter>	LU group 1
22,345	IBM	2105E20	1005	40BFC420	Assigned	<no filter>	LU group 1
22,345	IBM	2105E20	1005	40CFC420	Assigned	<no filter>	LU group 1
22,345	IBM	2105E20	1005	40BFC434	Assigned	<no filter>	LU group 1
22,345	IBM	2105E20	1005	40DFA34	Assigned	<no filter>	LU group 1
22,345	IBM	2105E20	1005	40BFC425	Assigned	<no filter>	LU group 1
22,345	IBM	2105E20	1005	40CFC425	Assigned	<no filter>	LU group 1
8,520	EMC	SYMMETRIX	5265	37012720Z	Assigned	<no filter>	LU group 1

Total: 19 Displayed: 12 Selected: 0

Assign LUN

Unassign LUN

Reassign LUN

Manage LUNs

Welcome

Manage LUNs

FIG. 21

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Manage Disks - Tivoli Console (Driver 7)

Console

Edit

View

Manage Disks

Window

Help

?

Manage LUNs

Host IP Address is 9.112.56.123

archi

trodon

trex

raptor

vega

124

5000

At least

At least

At most

OK

Accessible LUNs

Capacity in MBs

Unit Number

Status

Assigned To Other

Logical Url

8520	EMC	SYMMETRIX	5265	37012720C	Assigned	<no filter>	LU group 1
4875	EMC	SYMMETRIX	5265	37028120C	Assigned	<no filter>	LU group 1
4875	EMC	SYMMETRIX	825265	37028120C	Assigned	<no filter>	LU group 1
0	SEAGATE	ST1971FC	CC95	LAM14526	Assigned	<no filter>	LU group 1
4875	UNISYS	006073ST191	1901	LAC66200	Assigned	<no filter>	LU group 1
10500	UNISYS	006073ST191	1901	LAD88390	Assigned	<no filter>	LU group 1
22345	IBM	2105E20	1005	408FCA20	Assigned	<no filter>	LU group 1
22345	IBM	2105E20	1005	40CFCA20	Assigned	<no filter>	LU group 1
22345	IBM	2105E20	1005	408FCA34	Assigned	<no filter>	LU group 1
22345	IBM	2105E20	1005	40DFCA34	Assigned	<no filter>	LU group 1
8520	EMC	SYMMETRIX	5265	37012720Z	Unassign Pending	<no filter>	LU group 1

Total: 19 Displayed: 19 Selected: 0

Assign LUN

Unassign LUN

Reassign LUN

Welcome

Manage LUNs

FIG. 22

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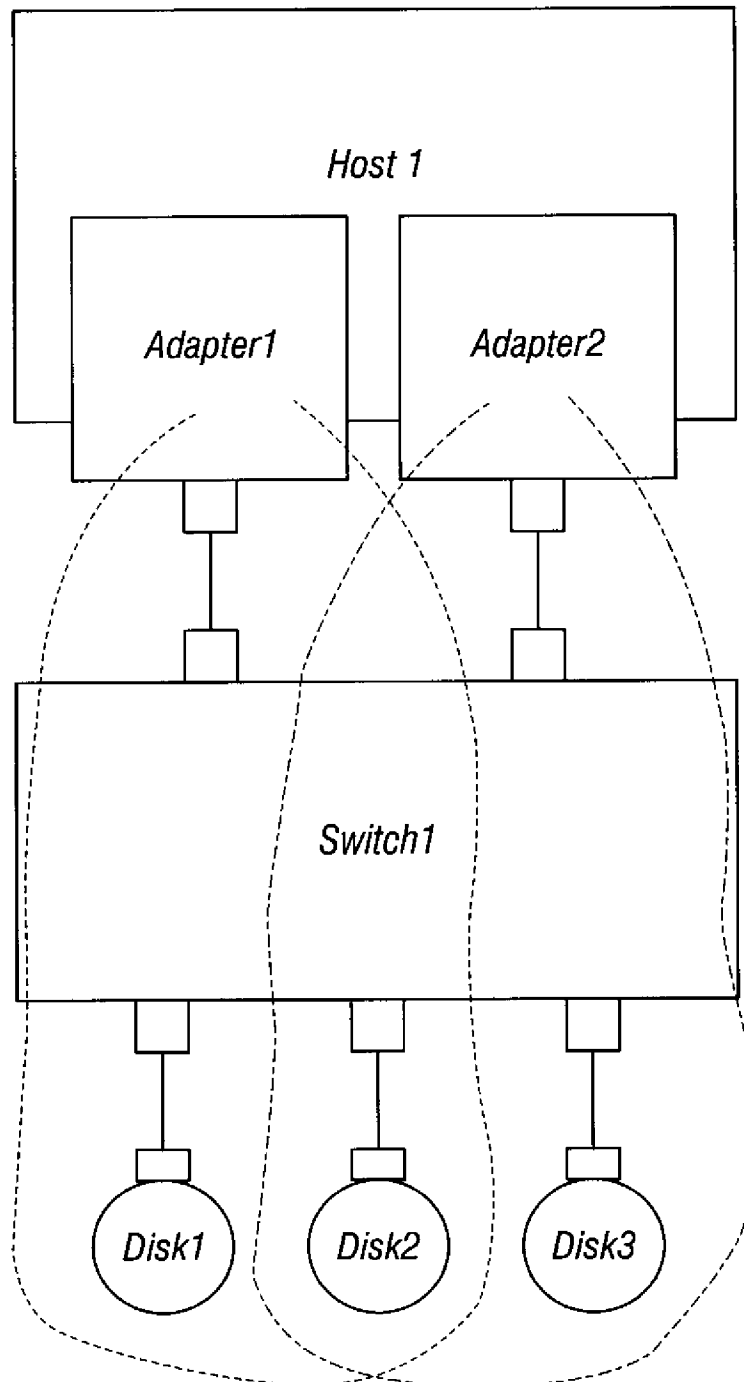


FIG. 23

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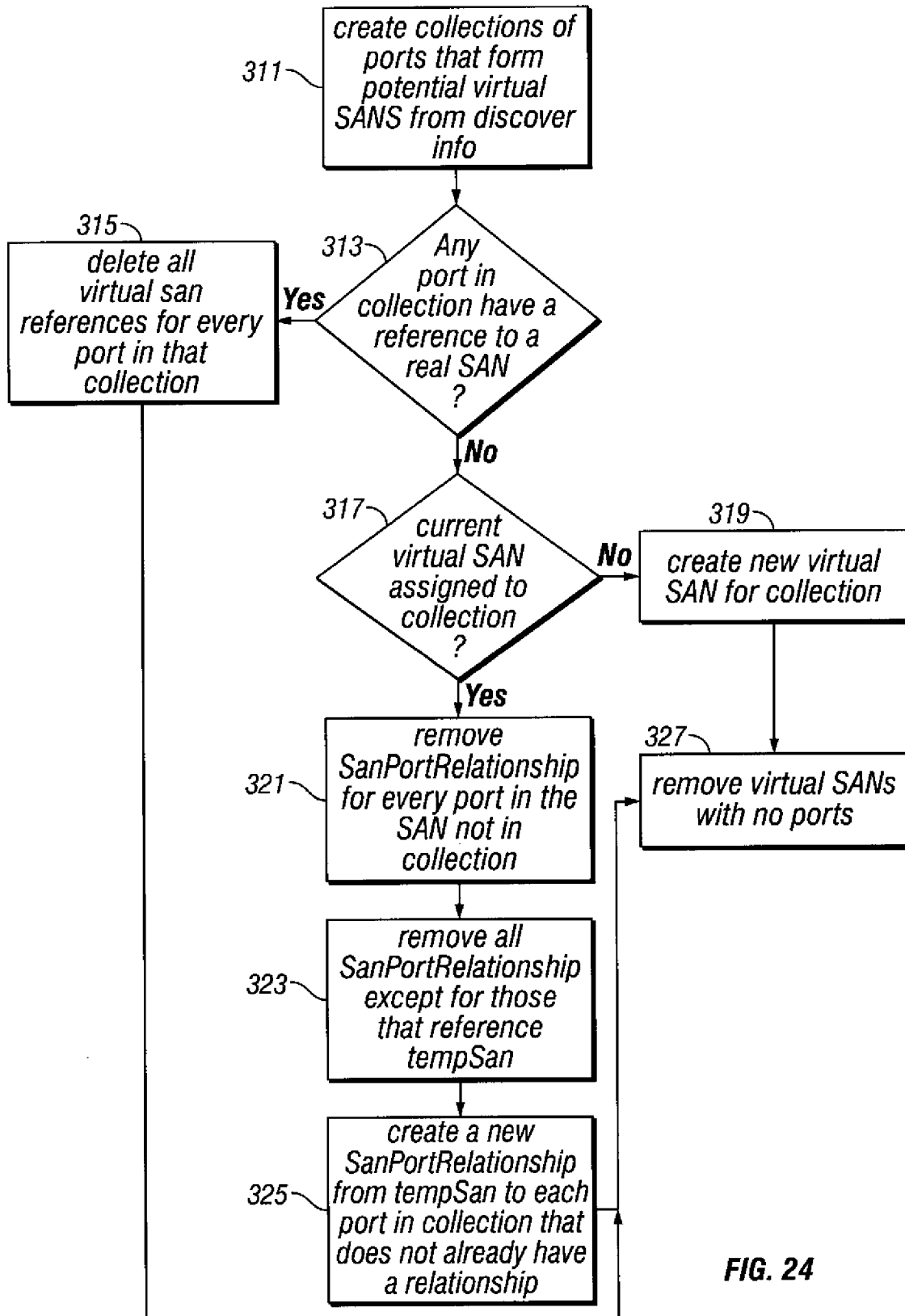


FIG. 24

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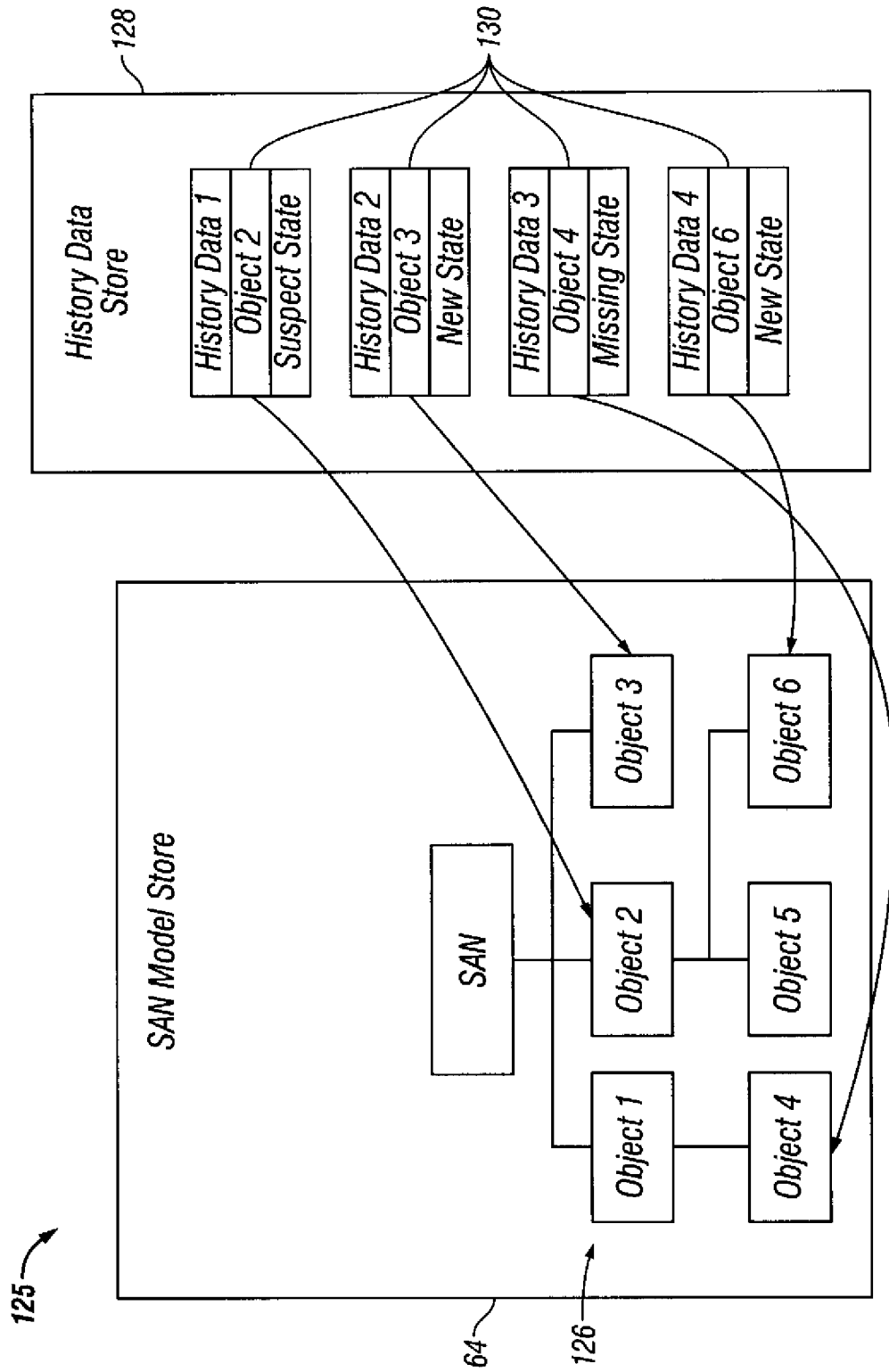


FIG. 25

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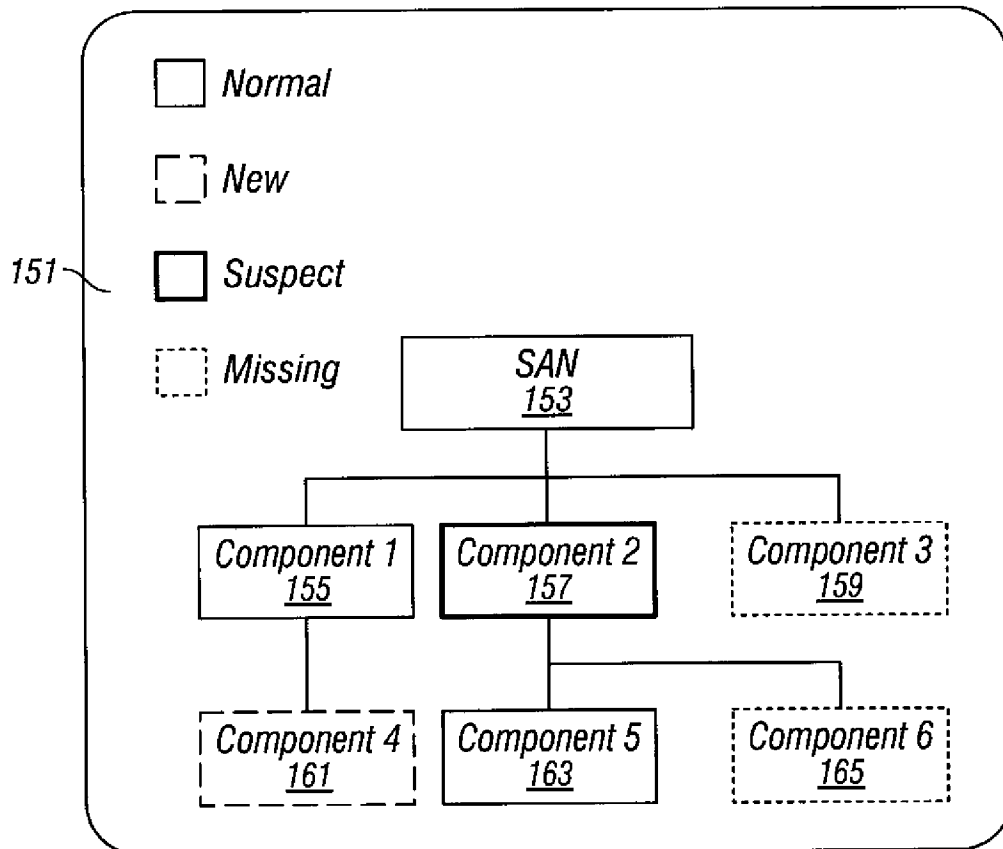


FIG. 26

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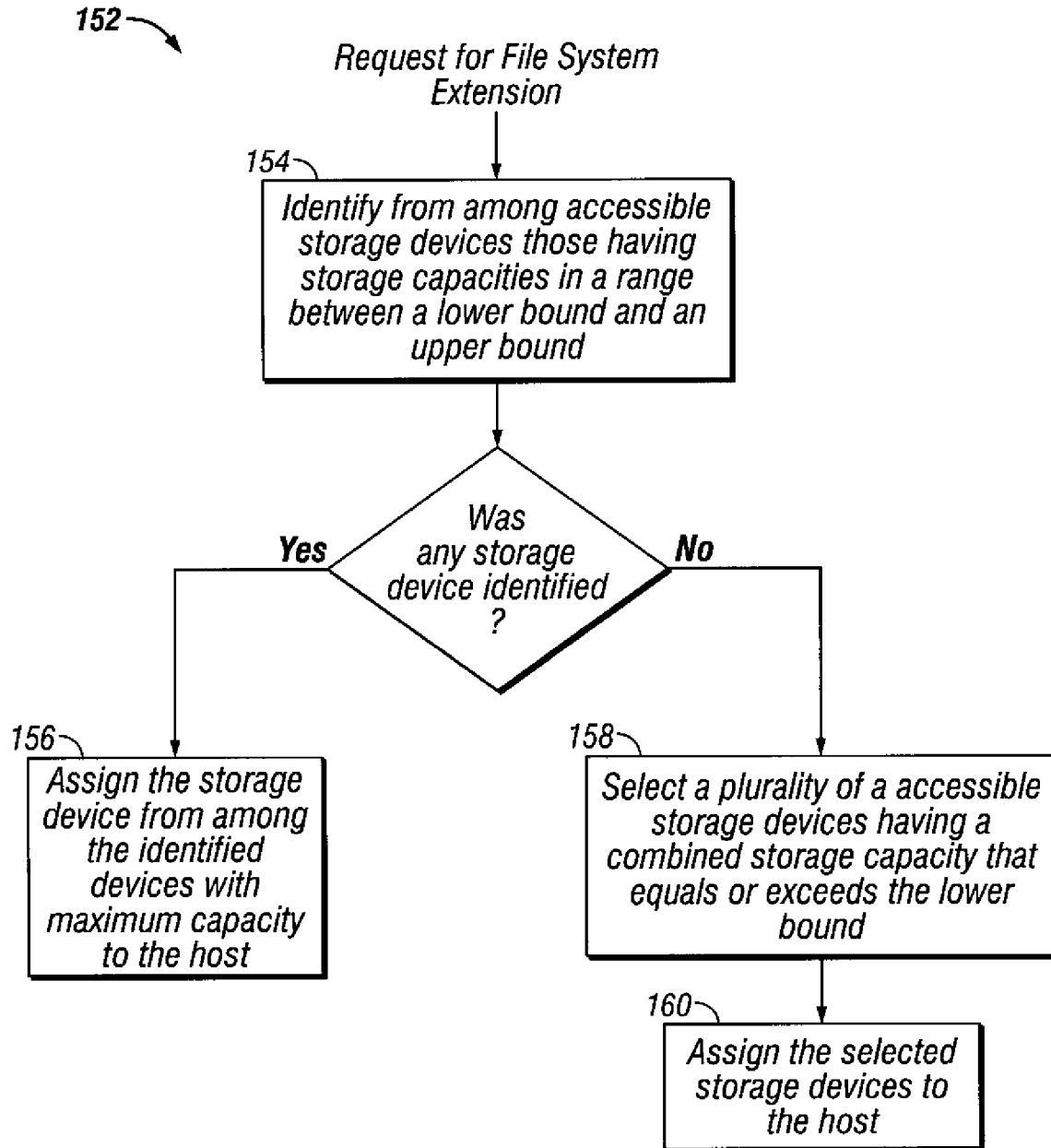
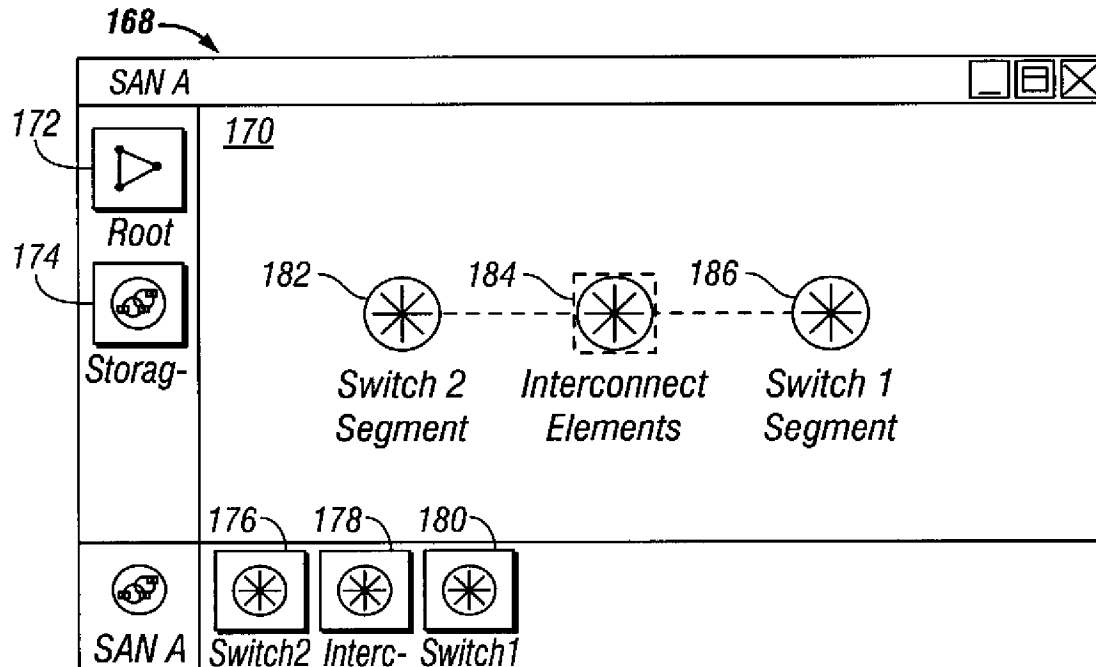
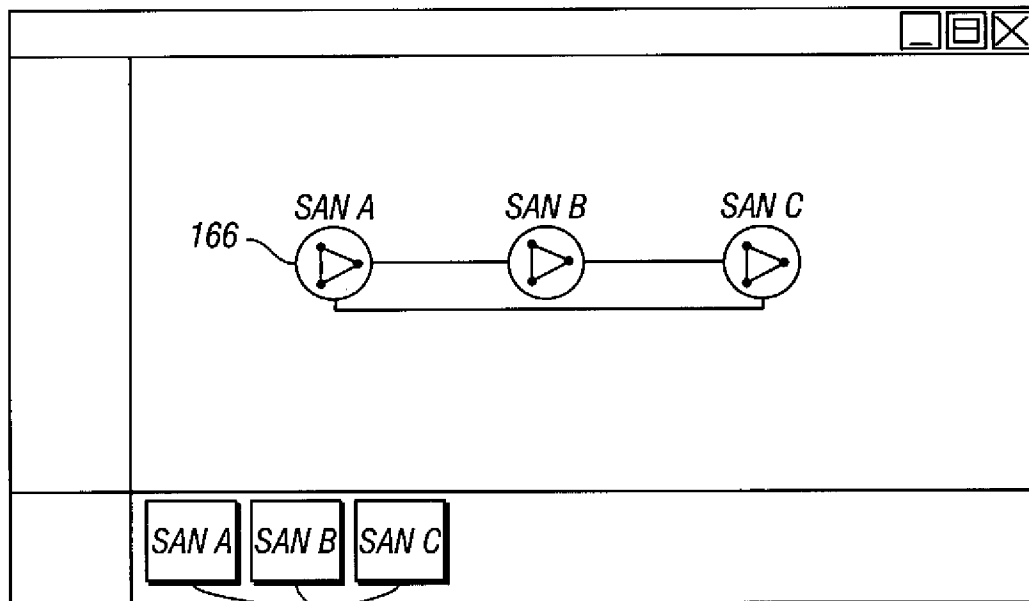


FIG. 27

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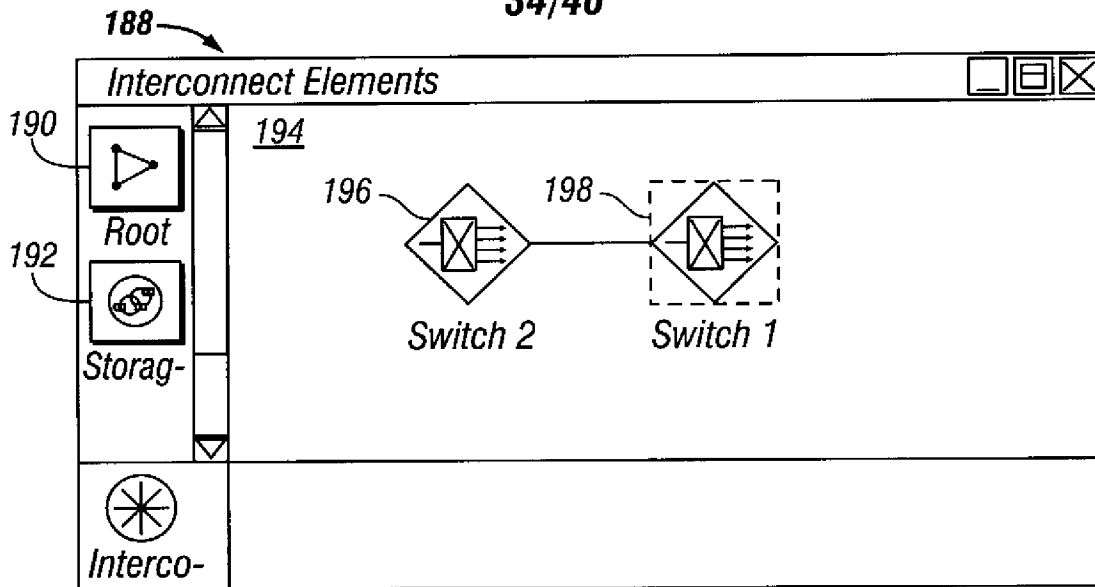


FIG. 30

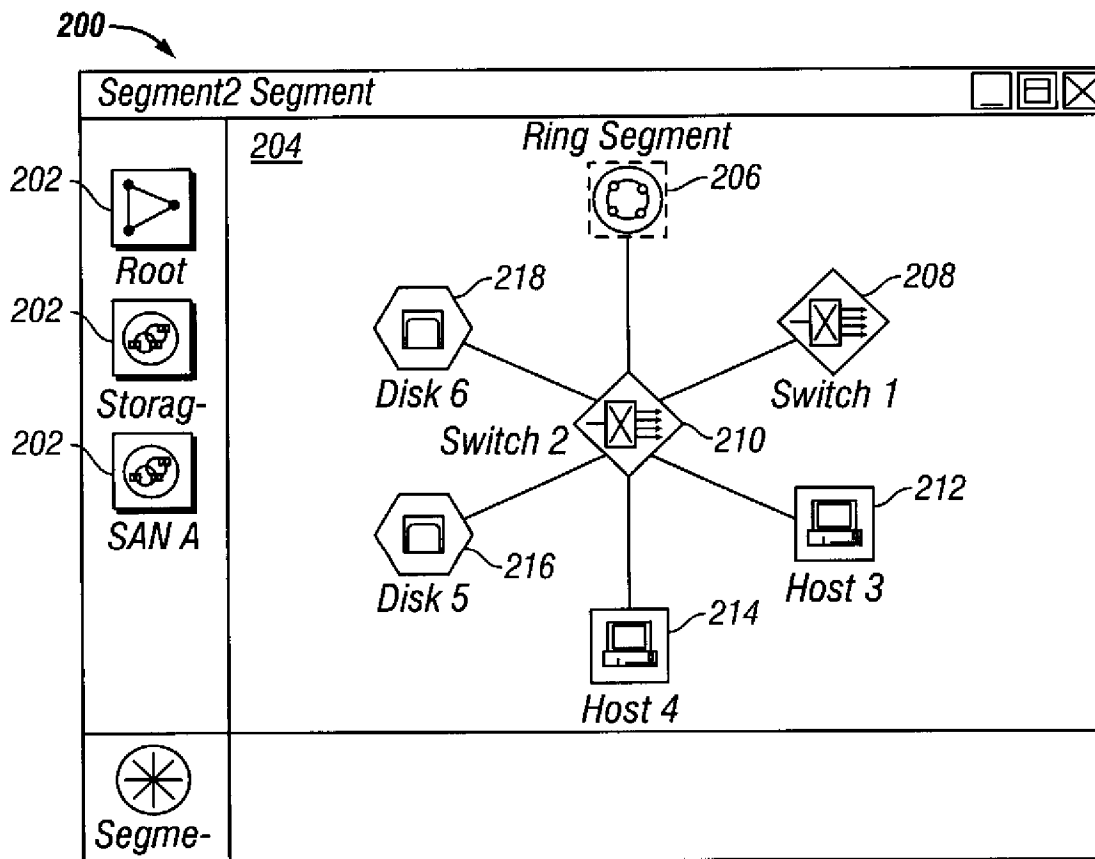


FIG. 31

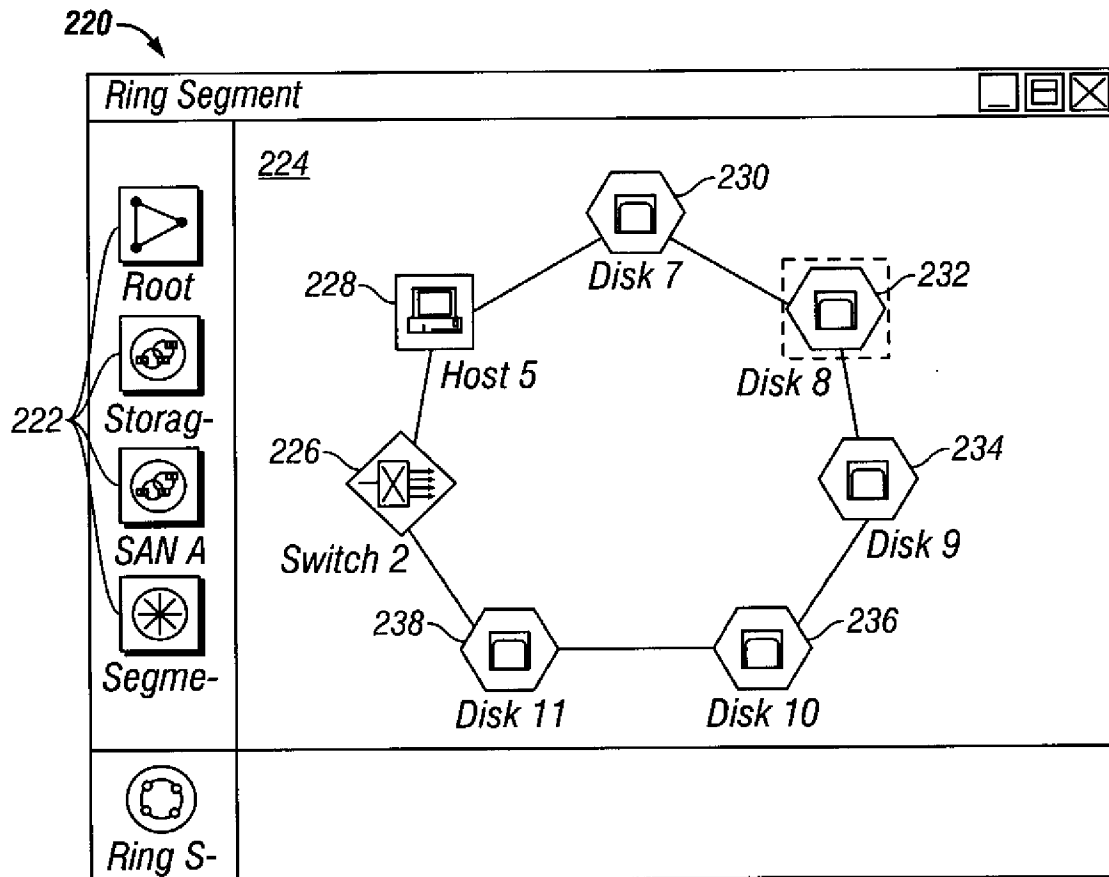


FIG. 32

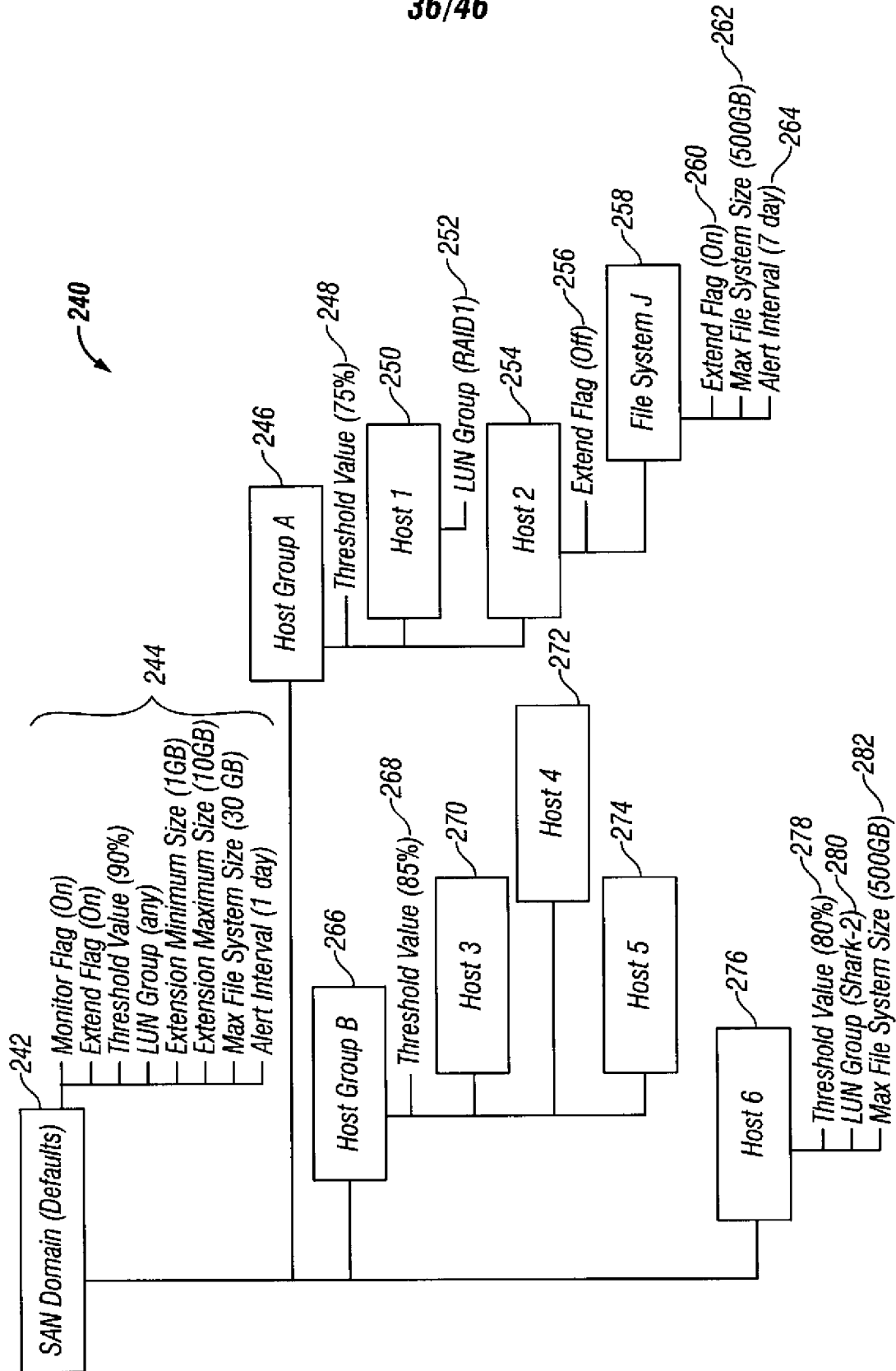


FIG. 33

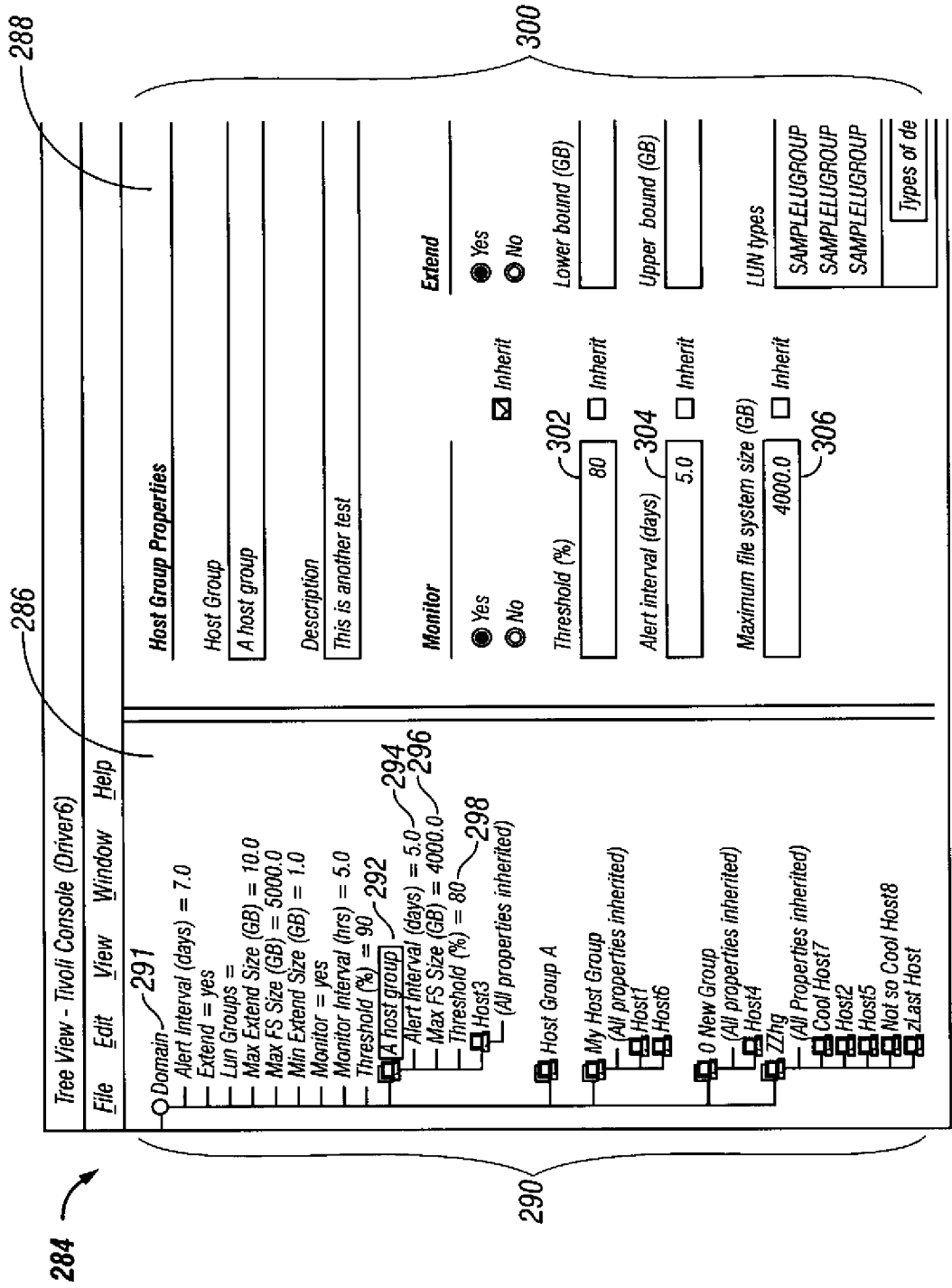


FIG. 34

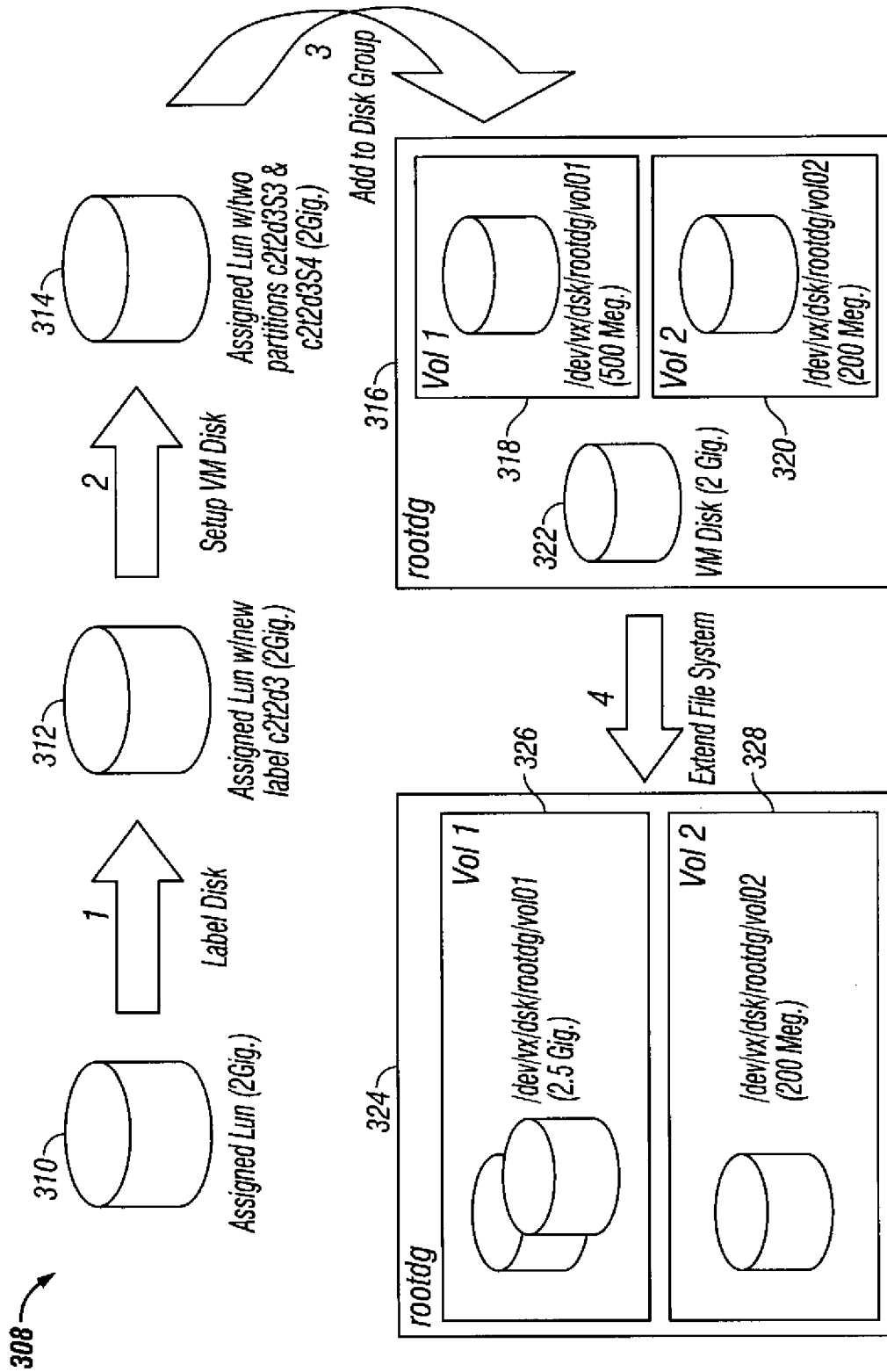


FIG. 35

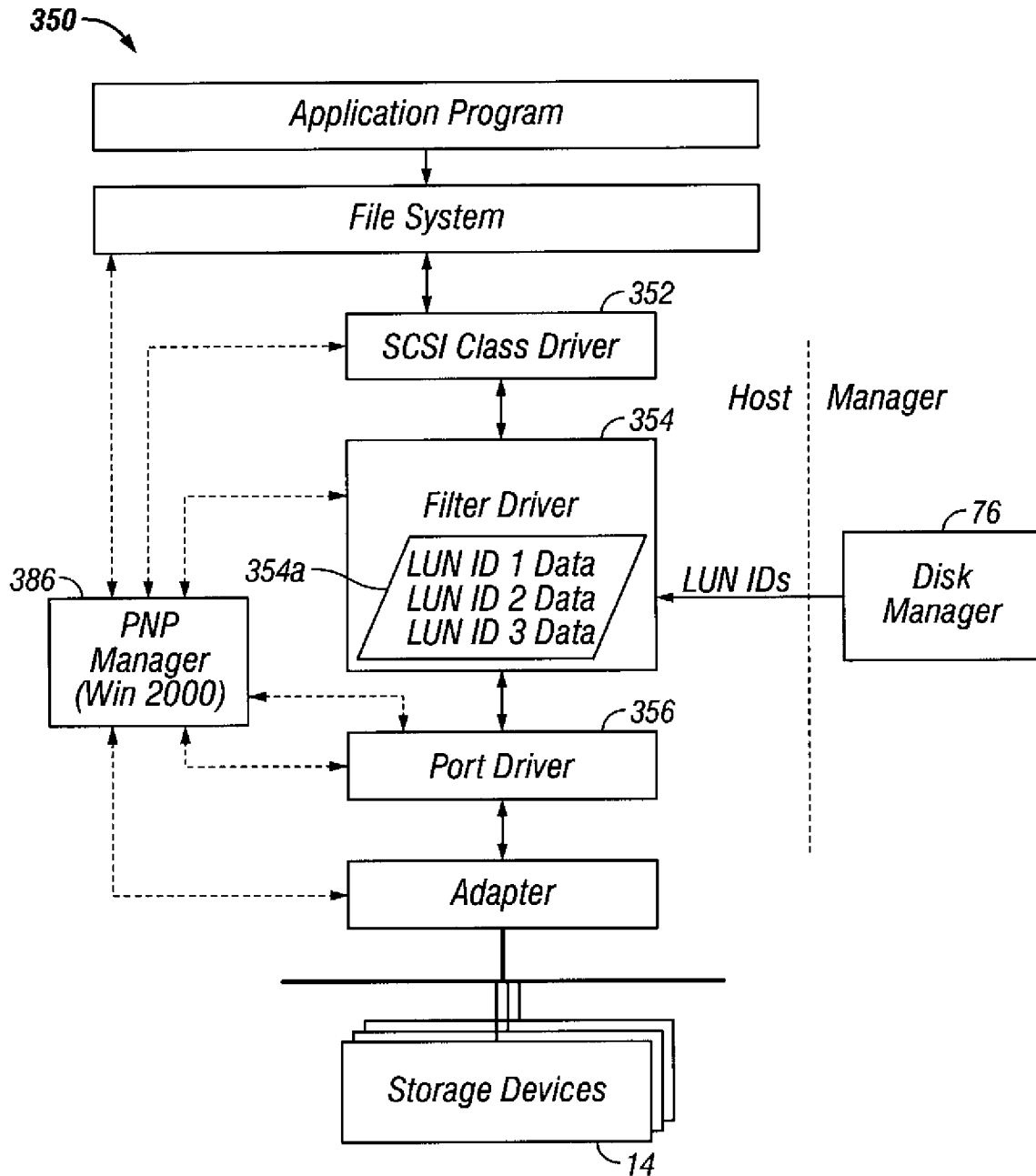


FIG. 36

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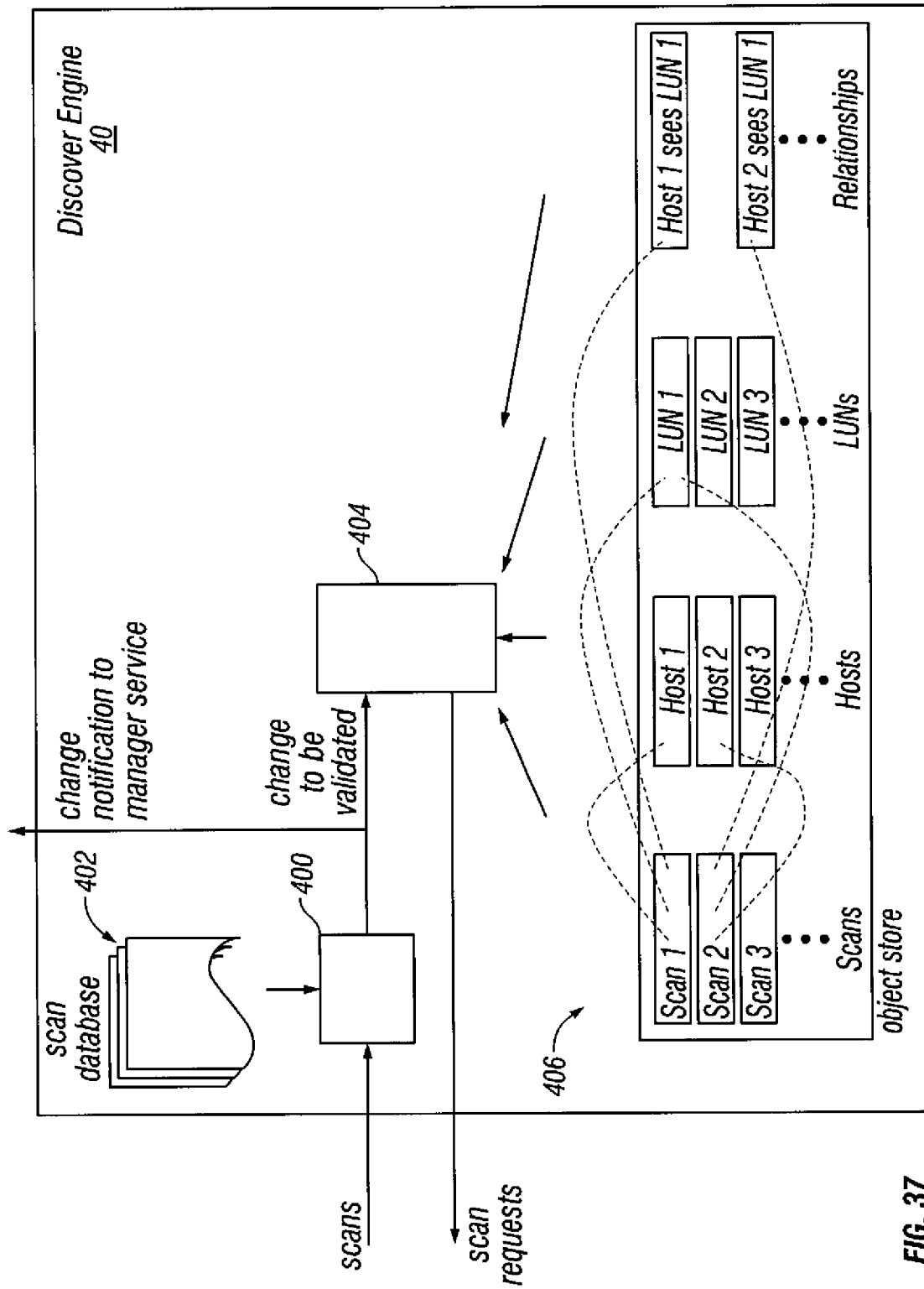


FIG. 37

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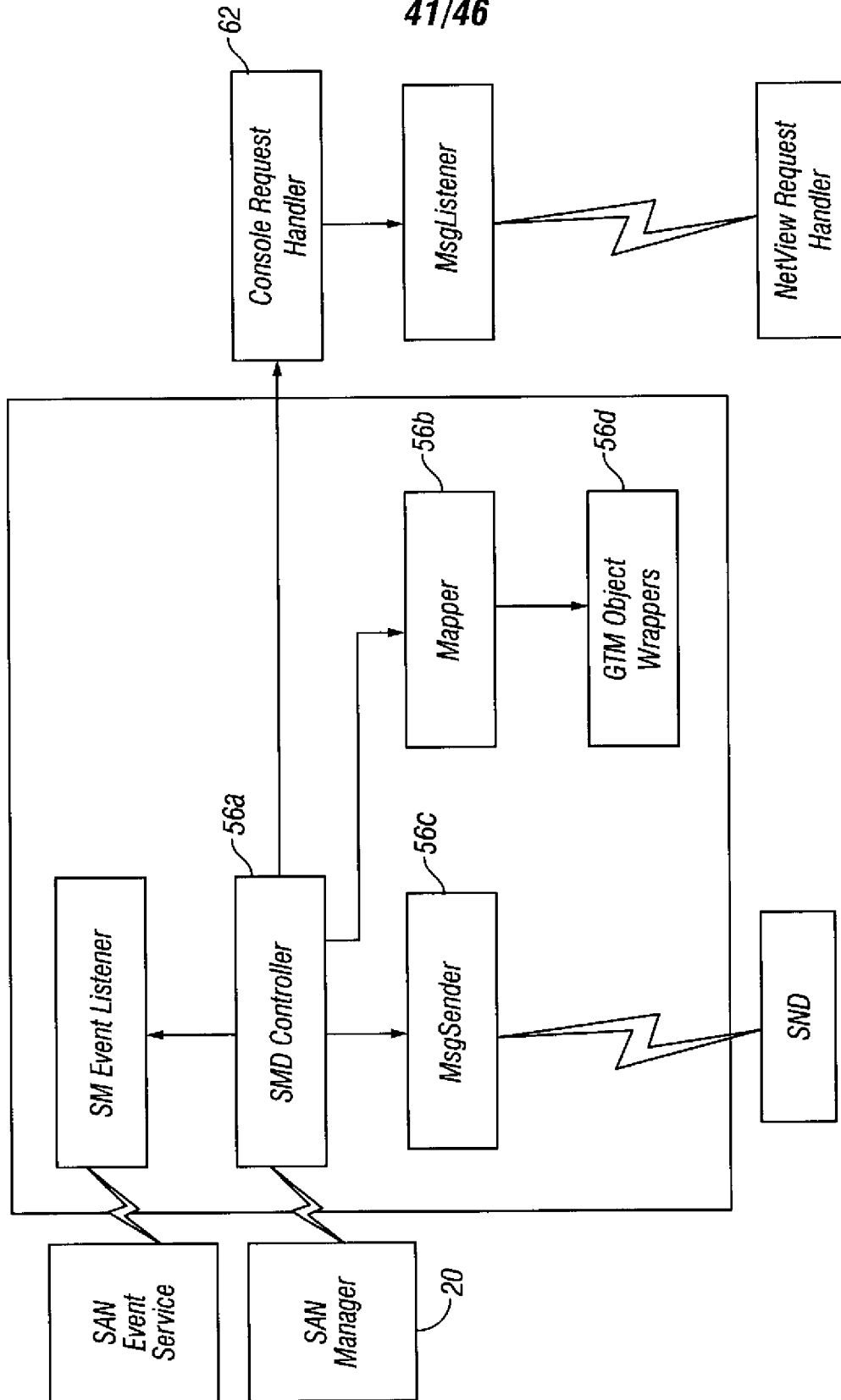


FIG. 38

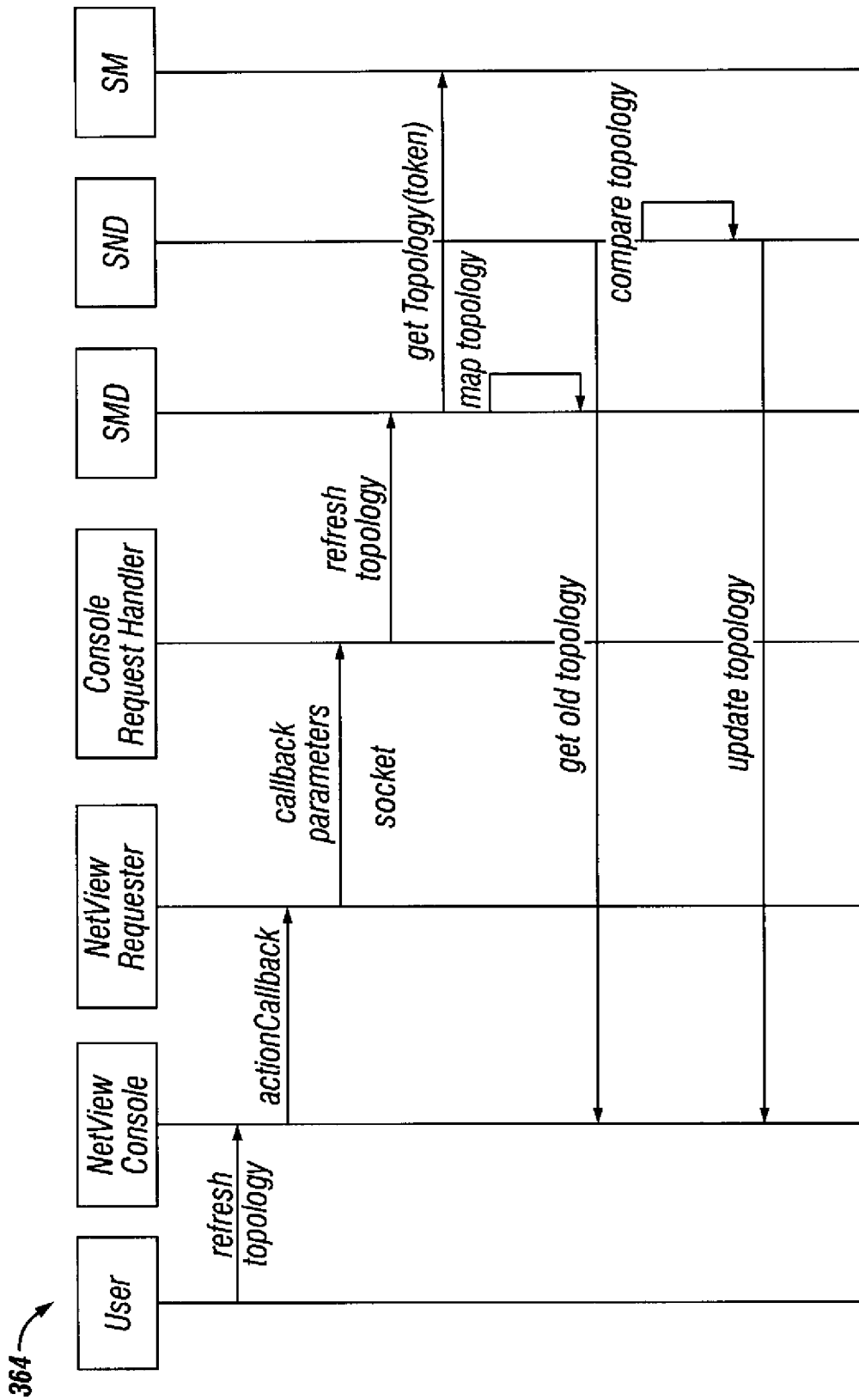


FIG. 39

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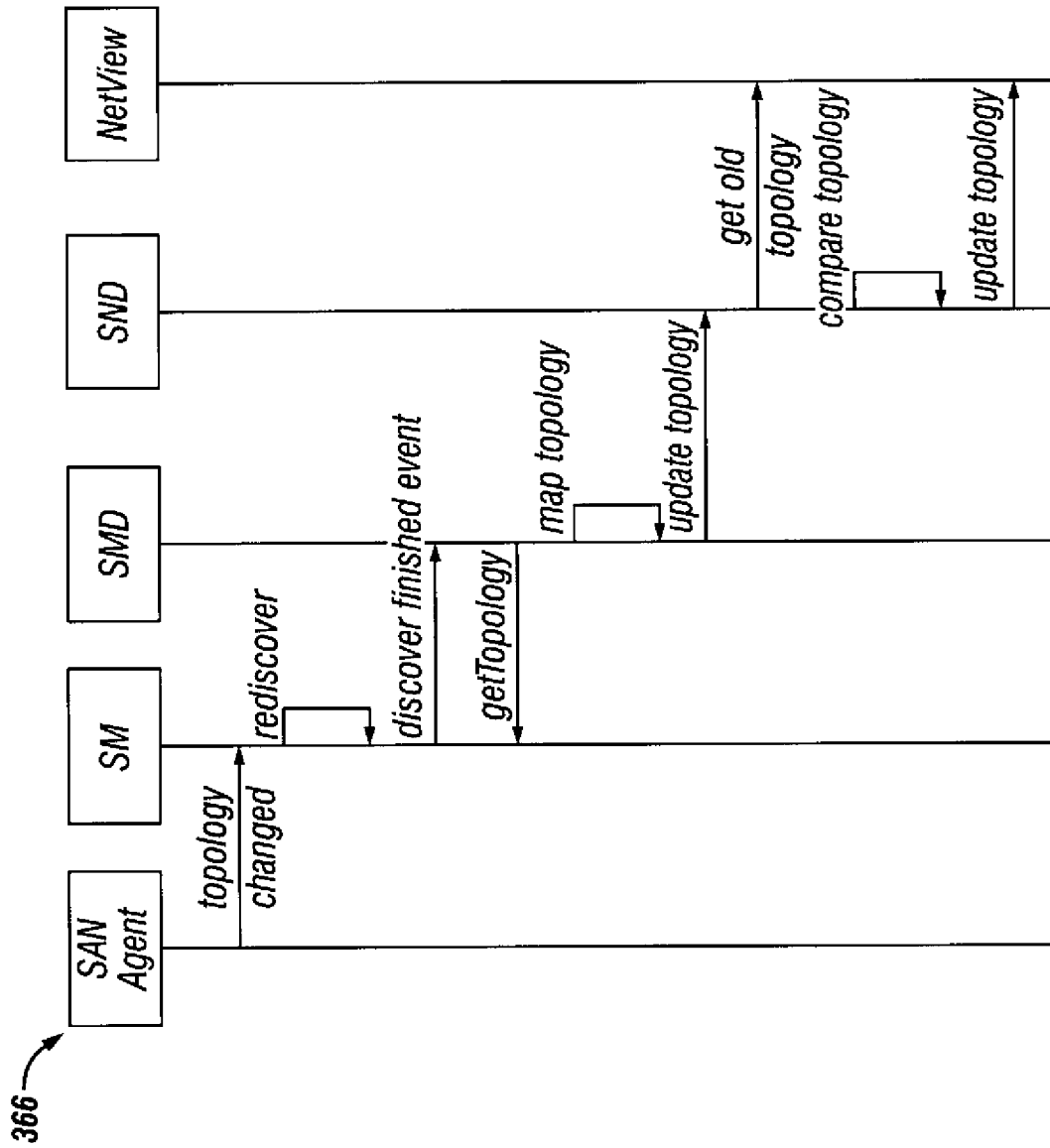
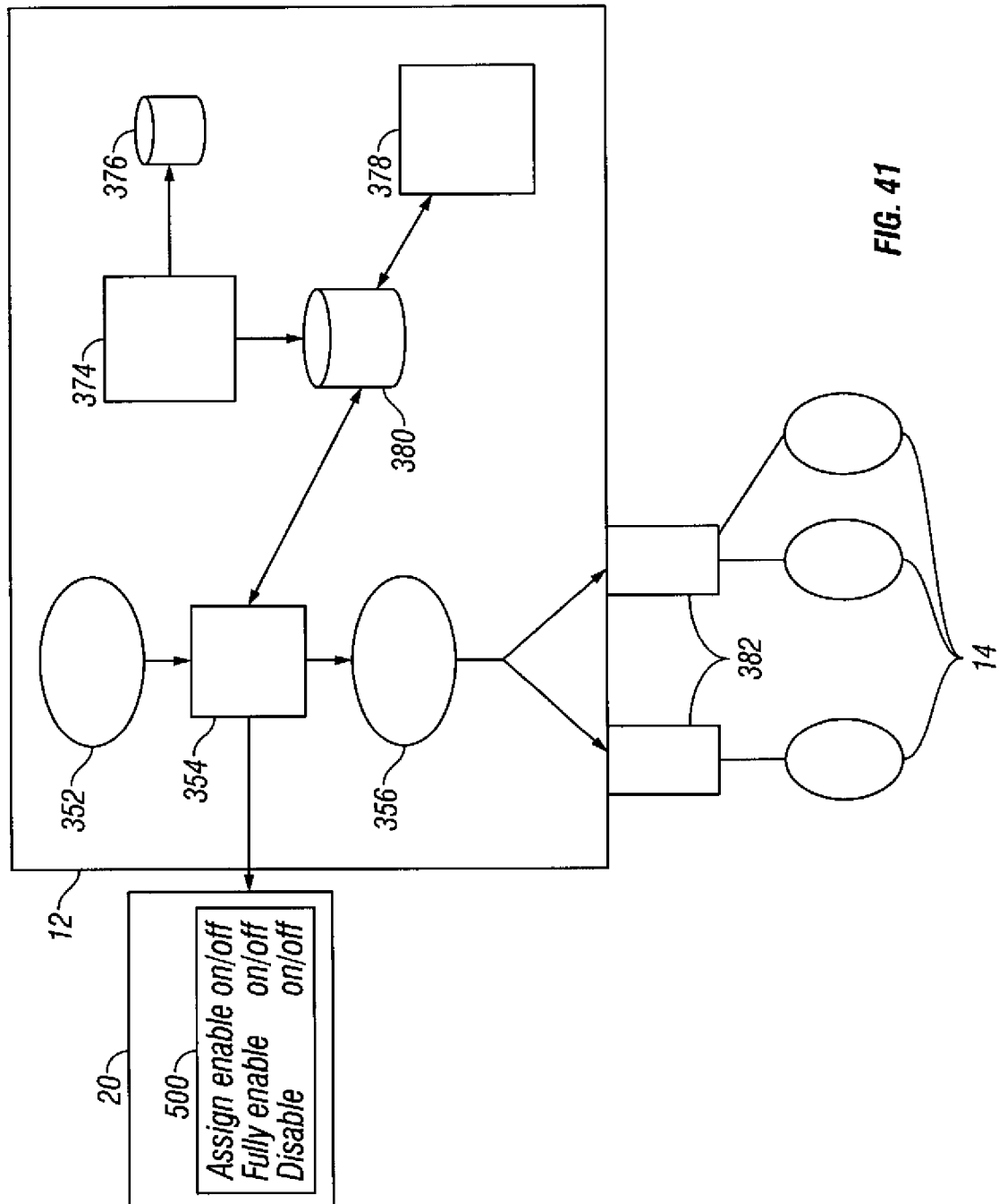


FIG. 40



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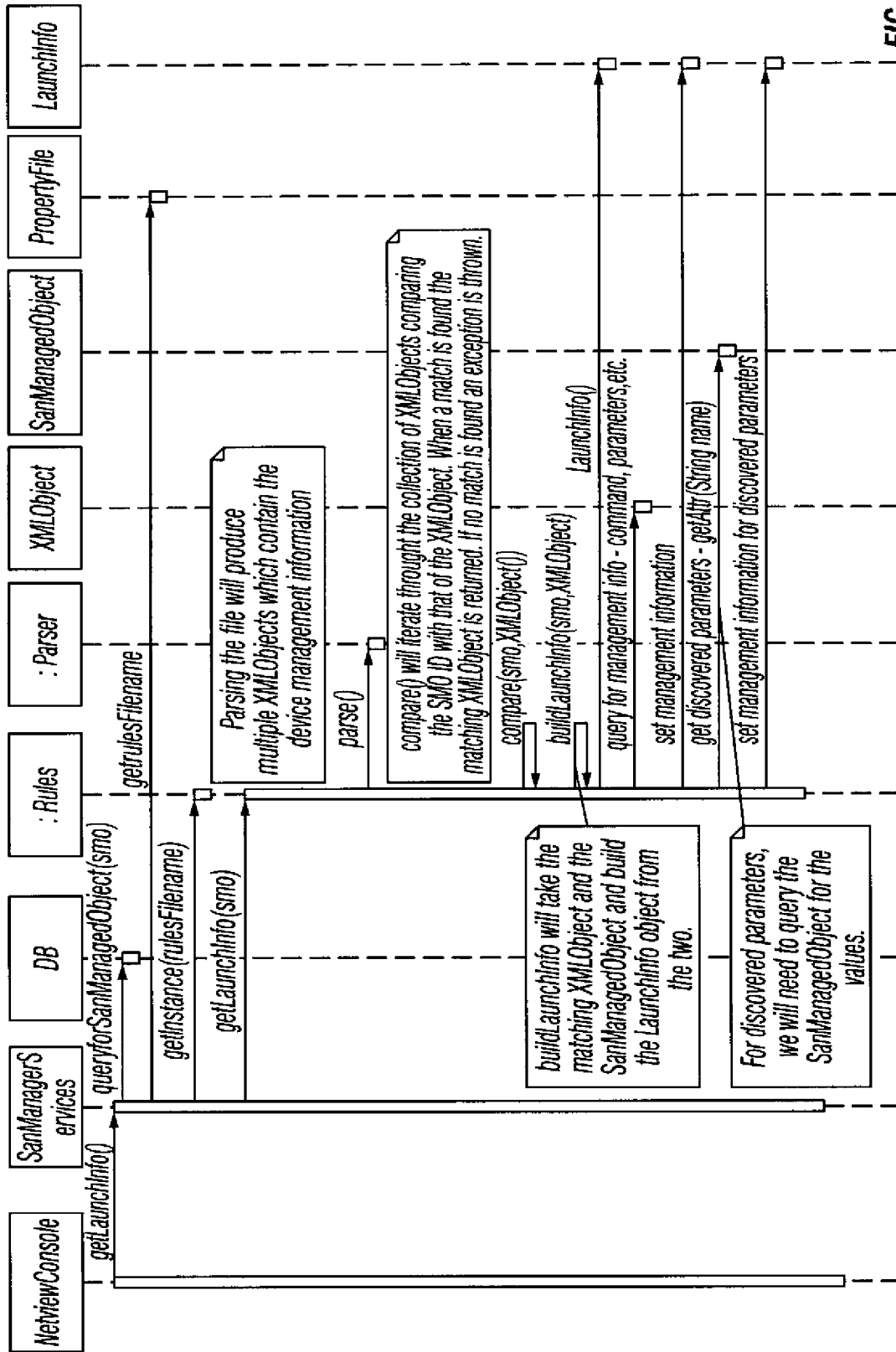


FIG. 42

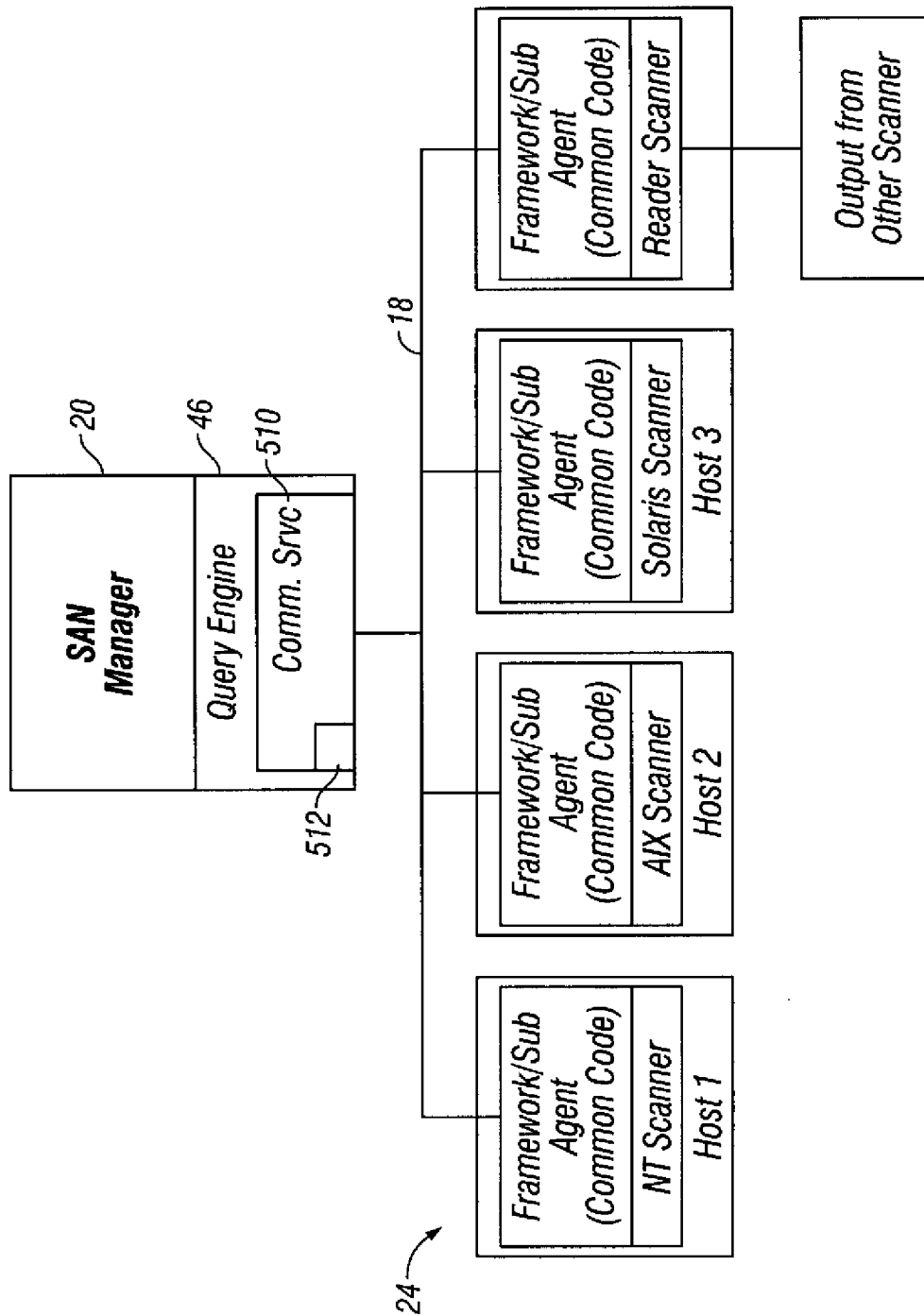


FIG. 43